DECLARATION OF PERFORMANCE
NR. LE_5918240330_03_M_WIT-PM 200(2)

LANGUAGE VERSIONS :

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EN	2
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DECLARATION OF PERFORMANCE

No. LE_5918240330_03_M_WIT-PM 200(2)

This is an English translation of the original German wording.
In cases of doubt, the German version applies.

1. Unique identification code of the product type:
   Würth Injektionssystem WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   [Würth WIT-PM 200 injection system, WIT-PM 200 express, WIT-PM 200 tropical]

   Art. no.: 591824*;
   090546*; 090547*; 59160*;
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
   090344 204; 090344 205
2. Intended use(s):
   Injection system for anchoring in masonry
3. Manufactured by:
   Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12–17
   D-74653 Künzelsau
4. System(s) of assessment and verification of constancy of performance:
   System 1
5. European Assessment Document:
   European Technical Assessment:
   Technical Assessment Body:
   Notified Body or Bodies:
   EAD 330076-01-0604
   ETA-13/0037 of 16/12/2022
   Technical and Test Institute for Construction Prague (TZUS)
   2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Declared performance:

Essential characteristics	**Performance**	**Harmonized technical specification**
Mechanical resistance and stability (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Characteristic resistance values	Annex C6–C40	
Displacements	Annex C5–C39	
Durability	Annex B1	
Fire protection (BWR 2)		
Fire behavior	The anchors fulfill the Class A1 requirements	
Hygiene, health and environment (BWR 3)		
Contents, emission and/or release of hazardous substances	Performance not rated	

The performance of the above product corresponds to the declared performance. The declaration of performance is issued in compliance with EU Regulation 305/2011 under the sole responsibility of the above manufacturer.

Signed for and on behalf of the manufacturer by:

Original signed by:

Frank Wolpert
(Authorized Signatory – Director Product, Divisions, Marketing)

Original signed by:

Dr.-Ing. Siegfried Beichter
(Authorized Signatory – Head of Product Safety)

Künzelsau, 12/16/2022

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Designated according to Article 29 of Regulation (EU) No 305/2011

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European Technical Assessment

ETA 13/0037 of 16/12/2022

(English language translation, the original version in Czech language)

Technical Assessment Body issuing the ETA: Technical and Test Institute for Construction Prague	
Trade name of the construction product	Würth WIT-PM 200 Würth WIT-PM 200 express Würth WIT-PM 200 tropical
Product family to which the construction product belongs	Product area code: 33 Injection anchors for use in masonry
Manufacturer	Adolf Würth GmbH & Co. KG Reinhold-Würth-Straße 12-17 74653 Künzelsau Germany
Manufacturing plant(s)	Plant 3, Germany
This European Technical Assessment contains	57 pages including 54 Annexes which form an integral part of this assessment.
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	EAD 330076-01-0604
This version replaces	ETA 13/0037 issued on 28/04/2016

Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and should be identified as such.

1. Technical description of the product

The Würth Injection system WIT-PM 200, WIT-PM 200 tropical and WIT-PM 200 express for masonry is bonded anchor consisting of a cartridge with injection mortar, a steel element and a plastic sleeve. The steel elements are the commercial threaded rods with hexagon nut and washer. The steel elements are made of galvanized or zinc plated steel, stainless or high corrosion resistance steel.

The anchor is placed into a drilled hole filled with injection mortar. The steel element is anchored via the bond between metal part, injection mortar and masonry.

The illustration and the description of the product are given in Annex A.

2. Specification of the intended use in accordance with the applicable EAD

The performances given in Section 3 are only valid if the anchor is used in compliance with the specifications and conditions given in Annex B.

The provisions made in this European Technical Assessment are based on an assumed working life of the anchor of 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the products in relation to the expected economically reasonable working life of the works.

3. Performance of the product and references to the methods used for its assessment

3.1 Mechanical resistance and stability (BWR 1)

Essential characteristic	Performance
Characteristic values for resistance	Annex C 6 to C 40
Displacements	Annex C 5 to C 39
Durability	Annex B 1

3.2 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Anchorages satisfy requirements for Class A1

3.3 Hygiene, health and environment (BWR 3)

No performance determined.

3.4 General aspects relating to fitness for use

Durability and serviceability are only ensured if the specifications of intended use according to Annex B 1 are taken into account.

4. Assessment and verification of constancy of performance (AVCP) system applied with reference to its legal base

According to the Decision 97/177/EC of the European Commission[1] the system of assessment verification of constancy of performance (see Annex V to Regulation (EU) No 305/2011) given in the following table applies.

Product	Intended use	Level or class	System
Injection anchors for use in masonry	For fixing and/or supporting to masonry, structural elements (which contributes to the stability of the construction works) or heavy units	-	1

[1] Official Journal of the European Communities L 073 of 14.03.1997

5. Technical details necessary for the implementation of the AVCP system, as provided in the applicable EAD

The factory production control shall be in accordance with the control plan which is a part of the technical documentation of this European Technical Assessment. The control plan is laid down in the context of the factory production control system operated by the manufacturer and deposited at Technický a zkušební ústav stavební Praha, s.p.[2] The results of factory production control shall be recorded and evaluated in accordance with the provisions of the control plan.

Issued in Prague on 16.12.2022

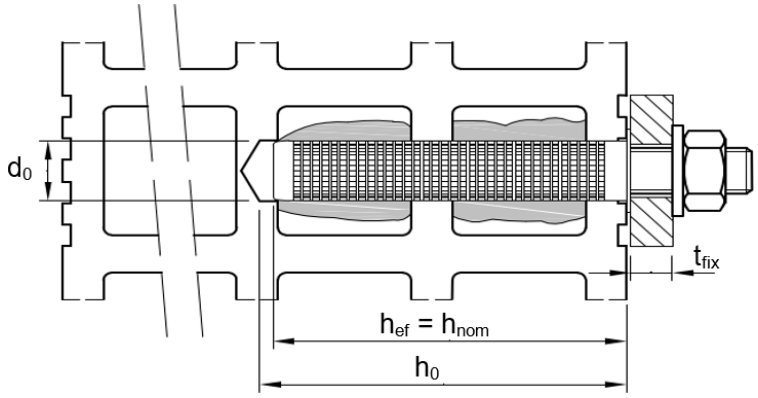
By

Ing. Jiří Studnička, Ph.D.
Head of the Technical Assessment Body

[2] The control plan is a confidential part of the documentation of the European Technical Assessment, but not published together with the ETA and only handed over to the approved body involved in the procedure of AVCP.

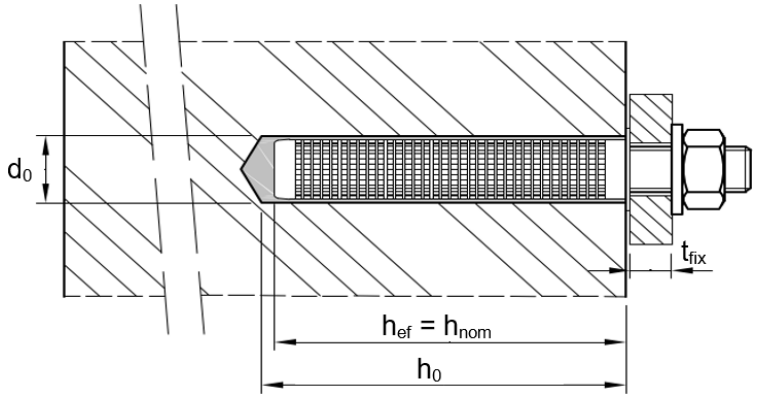
Installation in hollow brick

Threaded rod M8 up to M16 with sleeve

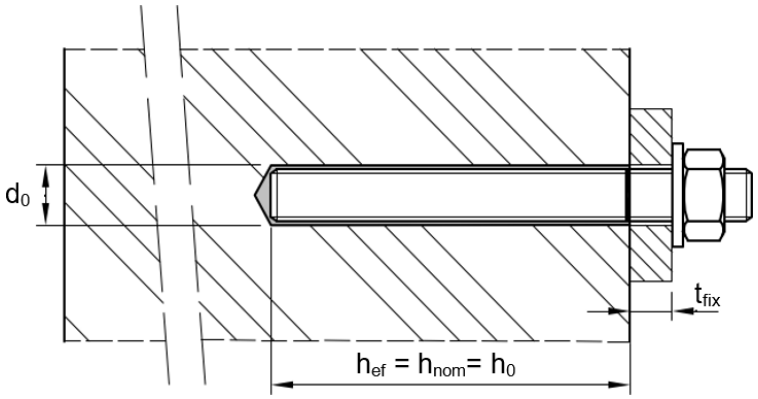


Installation in solid brick

Threaded rod M8 up to M16 with sleeve



Threaded rod M8 up to M16 without sleeve

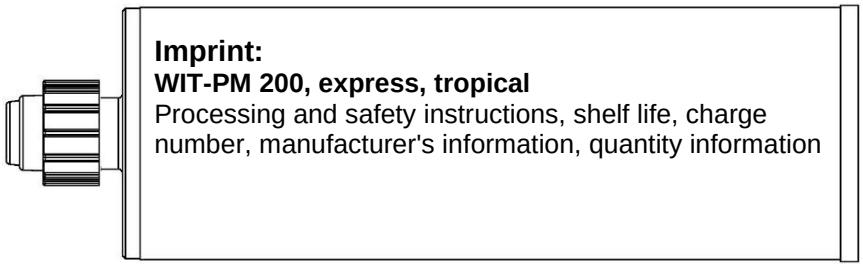


h_{ef}	=	effective anchorage depth	d_0	=	nominal drill hole diameter
h_{nom}	=	overall anchor embedment depth	t_{fix}	=	thickness of fixture
h_0	=	drill hole depth			

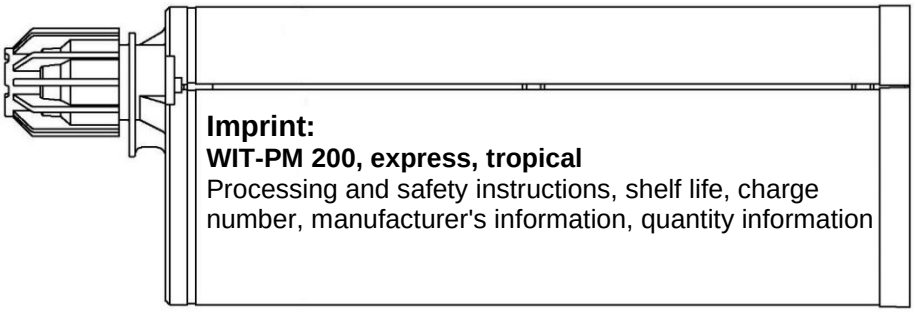
Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex A 1**
Product description Installed condition	

Cartridge system

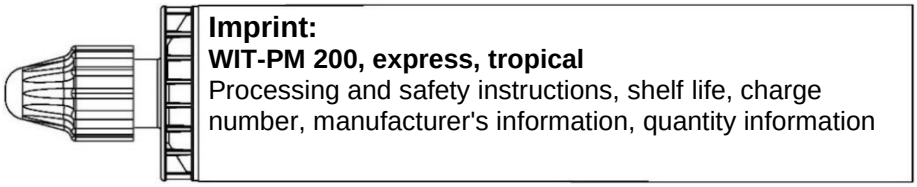
Coaxial Cartridge:
150 ml, 280 ml, 300 ml up to 333 ml and 380 ml up to 420 ml



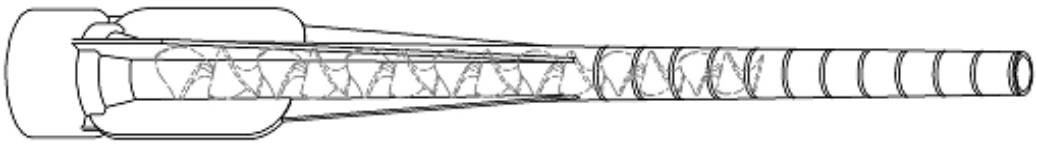
Side-by-Side Cartridge:
235 ml, 345 ml up to 360 ml and 825 ml



Foil Tube Cartridge:
165 ml and 300 ml

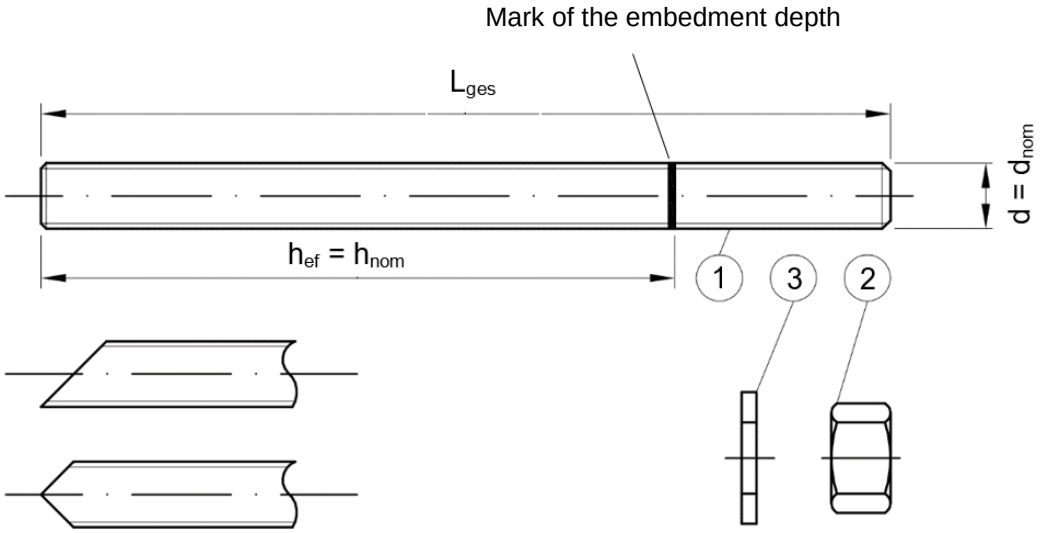


Static mixer CRW 14W, Fill & Clean



Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex A 2**
Product description Injection system	

Threaded rod M8 up to M16 with washer and hexagon nut



Commercial standard threaded rod with:
- Materials, dimensions and mechanical properties acc. Table A1
- Inspection certificate 3.1 acc. to EN 10204:2004. The document shall be stored.
- Marking of embedment depth

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex A 3**
Product description Threaded rod	

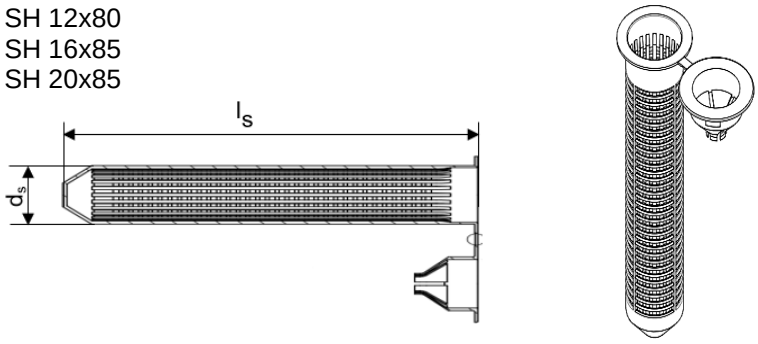
Table A1: Materials

Part	Designation	Material				
Steel, zinc plated (Steel acc. to EN ISO 683-4:2018 or EN 10263:2001) - zinc plated ≥ 5 µm acc. to EN ISO 4042:2018 or - hot-dip galvanized ≥ 40 µm acc. to EN ISO 1461:2009 and EN ISO 10684:2004+AC:2009 or - sherardized ≥ 45 µm acc. to EN ISO 17668:2016						
1	Anchor rod	Property class		Characteristic steel ultimate tensile strength	Characteristic steel yield strength	Elongation at fracture
		acc. to EN ISO 898-1:2013	4.6	f_{uk} = 400 N/mm²	f_{yk} = 240 N/mm²	A_5 > 8%
			4.8	f_{uk} = 400 N/mm²	f_{yk} = 320 N/mm²	A_5 > 8%
			5.6	f_{uk} = 500 N/mm²	f_{yk} = 300 N/mm²	A_5 > 8%
			5.8	f_{uk} = 500 N/mm²	f_{yk} = 400 N/mm²	A_5 > 8%
			8.8	f_{uk} = 800 N/mm²	f_{yk} = 640 N/mm²	A_5 > 8%
2	Hexagon nut	acc. to EN ISO 898-2:2012	4	for anchor rod class 4.6 or 4.8		
			5	for anchor rod class 5.6 or 5.8		
			8	for anchor rod class 8.8		
3	Washer	Steel, zinc plated, hot-dip galvanized or sherardized (e.g.: EN ISO 887:2006, EN ISO 7089:2000, EN ISO 7093:2000 or EN ISO 7094:2000)				
Stainless steel A2 (Material 1.4301 / 1.4307 / 1.4311 / 1.4567 or 1.4541, acc. to EN 10088-1:2014) **Stainless steel A4** (Material 1.4401 / 1.4404 / 1.4571 / 1.4362 or 1.4578, acc. to EN 10088-1:2014) **High corrosion resistance steel** (Material 1.4529 or 1.4565, acc. to EN 10088-1: 2014)						
1	Anchor rod[1)]	Property class		Characteristic steel ultimate tensile strength	Characteristic steel yield strength	Elongation at fracture
		acc. to EN ISO 3506-1:2009	50	f_{uk} = 500 N/mm²	f_{yk} = 210 N/mm²	A_5 > 8%
			70	f_{uk} = 700 N/mm²	f_{yk} = 450 N/mm²	A_5 > 8%
			80	f_{uk} = 800 N/mm²	f_{yk} = 600 N/mm²	A_5 > 8%
2	Hexagon nut[1)]	acc. to EN ISO 3506-1:2009	50	for anchor rod class 50		
			70	for anchor rod class 70		
			80	for anchor rod class 80		
3	Washer	A2: Material 1.4301, 1.4311 / 1.4307 / 1.4567 or 1.4541, EN 10088-1:2014 A4: Material 1.4401, 1.4404 / 1.4571 / 1.4362 or 1.4578, EN 10088-1:2014 HCR: Material 1.4529 or 1.4565, acc. to EN 10088-1: 2014 (e.g.: EN ISO 887:2006, EN ISO 7089:2000, EN ISO 7093:2000 or EN ISO 7094:2000)				
[1)] Property class 80 only for stainless steel A4 and HCR						
Plastic sieve sleeve						
Sieve sleeve SH		Polypropylene (PP)				

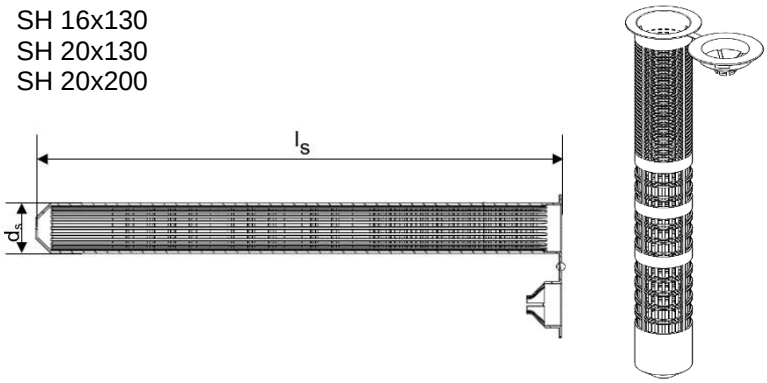
Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex A 4**
Product description Materials	

Table A2: Perforated sleeve

SH 12x80
SH 16x85
SH 20x85



SH 16x130
SH 20x130
SH 20x200



SH 16x130 / 330

For installations through insulation up to a thickness of 20 cm or push through installation

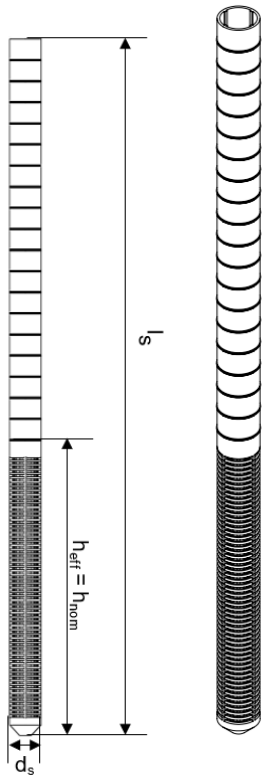


Table A3: Sleeve dimensions

sleeve			
Size	$d_s = d_{nom}$	l_s	$h_{ef} = h_{nom}$
[mm]	[mm]	[mm]	[mm]
SH 12x80	12	80	80
SH 16x85	16	85	85
SH 16x130	16	130	130
SH 16x130 / 330	16	330	130
SH 20x85	20	85	85
SH 20x130	20	130	130
SH 20x200	20	200	200

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Product description
Sleeves and steel parts

Annex A 5

Specifications of intended use

Anchorages subject to:	Static and quasi-static loads M8 to M16 (with and without perforated sleeve)	
Base material	Masonry group b: Solid brick masonry Masonry group c: Hollow brick masonry Masonry group d: Autoclaved Aerated Concrete	Annex B2 and B3. Annex B2 and B3 Annex B2
	Mortar strength class of the masonry M2,5 at minimum according to EN 998-2:2010. For other bricks in solid masonry and in hollow masonry or in autoclaved aerated concrete, the characteristic resistance of the anchor may be determined by job site tests according to EOTA TR 053, Edition April 2016 under consideration of the β-factor according to Annex C1, Table C1.	
Hole drilling	See Annex C 5 – C 40	
Use category	Condition d/d: Installation and use in dry masonry Condition w/w: Installation and use in dry or wet masonry (incl. w/d installation in wet masonry and use in dry masonry)	
Temperature Range:	T_a: - 40°C to +40°C (max. short term temperature +40°C and max. long term temperature +24°C) T_b: - 40°C to +80°C (max. short term temperature +80°C and max. long term temperature +50°C)	

Use conditions (Environmental conditions):
- Dry and wet structures (regarding injection mortar).
- Structures subject to dry internal conditions (zinc coated steel, stainless steel or high corrosion resistant steel).
- Structures subject to external atmospheric exposure (including industrial and marine environment) and to permanently damp internal condition, if no particular aggressive conditions exist (stainless steel or high corrosion resistant steel).
- Structures subject to external atmospheric exposure and to permanently damp internal condition, if other particular aggressive conditions exist (high corrosion resistant steel).

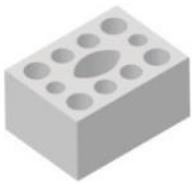
Note: Particular aggressive conditions are e.g. permanent, alternating immersion in seawater or the splash zone of seawater, chloride atmosphere of indoor swimming pools or atmosphere with extreme chemical pollution (e.g. in desulphurization plants or road tunnels where de-icing materials are used).

Design:
- Verifiable calculation notes and drawings are prepared taking account the relevant masonry in the region of the anchorage, the loads to be transmitted and their transmission to the supports of the structure. The position of the anchor is indicated on the design drawings.
- The anchorages are designed in accordance with the EOTA TR 054, Edition April 2016, Design method A under the responsibility of an engineer experienced in anchorages and masonry work.

Installation:
- Anchor Installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex B 1**
Intended use Specifications	

Table B1: Overview brick types and properties with corresponding fastening elements (Anchors and Sleeves)

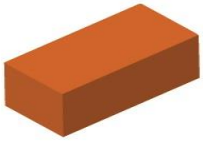
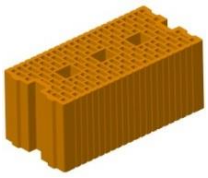
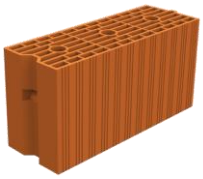
Naming Density [kg/dm³] Dimensions LxBxH [mm]	Picture	Anchor rods	Perforated sleeve	Annex	Naming Density [kg/dm³] Dimensions LxBxH [mm]	Picture	Anchor rods	Perforated sleeve	Annex
Autoclaved aerated concrete acc. to EN 771-4:2011+A1:2015									
AAC ρ = 0,35-0,60 ≥ 499x240x249		M8 - M16	-	C5 – C10					
Light weight concrete brick acc. to EN 771-3:2011+A1:2015									
VBL ρ = 0,63 240x300x113		M8 - M16	-	C35 – C36	Leca Lex harkko RUH-200 Kulma ρ = 0,62 498x200x195		M8 - M16	12x80 16x85 16x130 20x85 20x130	C39 - C40
Hollow light weight concrete brick acc. to EN 771-3:2011+A1:2015									
Bloc creux B40 ρ = 0,8 494x200x190		M8 - M16	12x80 16x85 16x130 20x85 20x130	C33 - C34	Leca Lex harkko RUH-200 Kulma ρ = 0,62 498x200x195		M8 - M16	12x80 16x85 16x130 20x85 20x130	C37 - C38
Calcium silica bricks acc. to EN 771-2:2011+A1:2015									
KS-NF ρ = 2,0 240x115x71		M8 - M16	12x80 16x85 16x130 20x85 20x130 20x200	C11 – C12	KS L-3DF ρ = 1,4 240x175x113		M8 - M16	12x80 16x85 16x130 20x85 20x130 20x200	C13 – C14
KS L-12DF ρ = 1,4 498x175x238		M8 - M16	12x80 16x85 16x130 20x130	C15 – C16					

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Intended use
Brick types and properties with corresponding fastening elements

Annex B 2

Table B1: Overview brick types and properties with corresponding fastening elements (Anchors and Sleeves) (Continued)

Naming Density [kg/dm³] Dimensions LxBxH [mm]	Picture	Anchor rods	Perforated sleeve	Annex	Naming Density [kg/dm³] Dimensions LxBxH [mm]	Picture	Anchor rods	Perforated sleeve	Annex
Solid clay bricks acc. to EN 771-1:2011+A1:2015									
Mz-1DF ρ = 1,64 240x115x55		M8 - M16	12x80 16x85 16x130 20x85 20x130 20x200	C17 - C18					
Hollow clay bricks acc. to EN 771-1:2011+A1:2015									
HLz-16DF ρ = 0,83 497x240x238		M8 - M16	12x80 16x85 16x130 20x85 20x130 20x200	C19 - C20	Porotherm Homebric ρ = 0,68 500x200x299		M8 - M16	12x80 16x85 16x130 20x85 20x130	C21 - C22
BGV Thermo ρ = 0,62 500x200x314		M8 - M16	12x80 16x85 16x130 20x85 20x130	C23 - C24	Calibric Th ρ = 0,62 500x200x314		M8 - M16	12x80 16x85 16x130 20x85 20x130	C25 - C26
Urbanbrick ρ = 0,74 560x200x274		M8 - M16	12x80 16x85 16x130 20x85 20x130	C27 - C28	Blocchi Leggeri ρ = 0,55 250x120x250		M8 - M16	12x80 16x85 16x130 20x85 20x130 20x200	C29 - C30
Doppio Uni ρ = 0,92 250x120x120		M8 - M16	12x80 16x85 16x130 20x85 20x130 20x200	C31 - C32					

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Intended use
Brick types and properties with corresponding fastening elements

Annex B 3

Table B2: Installation parameters in Autoclaved Aerated Concrete AAC and solid masonry (without sleeve)

Anchor size				M8	M10	M12	M16
Outer diameter of anchor		$d = d_{nom}$	[mm]	8	10	12	16
Nominal drill hole diameter		d_0	[mm]	10	12	14	18
Drill hole depth		h_0	[mm]	80	90	100	100
Effective anchorage depth		h_{ef}	[mm]	80	90	100	100
Minimum wall thickness		h_{min}	[mm]	h_{ef} + 30			
Diameter of clearance hole in the fixture	Prepositioned installation	$d_f \leq$	[mm]	9	12	14	18
	Push through installation	d_f	[mm]	12	14	16	20
Maximum torque moment		max $T_{inst} \leq$	[Nm]	See Annexes C 5 - C 40			
Minimum spacing		s_{min}	[mm]				
Minimum edge distance		c_{min}	[mm]				

Table B3: Installation parameters in solid and hollow masonry (with sleeve)

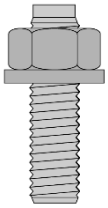
Anchor size				M8	M8 / M10			M12 / M16		
	Sleeve SH		[mm]	12x80	16x85	16x130	16x130/330	20x85	20x130	20x200
Outer diameter of anchor		$d_s = d_{nom}$	[mm]	12	16	16	16	20	20	20
Nominal drill hole diameter		d_0	[mm]	12	16	16	16	20	20	20
Drill hole depth		h_0	[mm]	85	90	135	135 + t_{fix}	90	135	205
Effective anchorage depth		h_{ef}	[mm]	80	85	130	130	85	130	200
Minimum wall thickness		h_{min}	[mm]	115	115	195	195	115	195	240
Diameter of clearance hole in the fixture	Prepositioned installation	$d_f \leq$	[mm]	9	9 (M8) / 12 (M10)			14 (M12) / 18 (M16)		
	Push through installation	d_f	[mm]	14	18			22		
Maximum torque moment		max $T_{inst} \leq$	[Nm]	See Annexes C 5 - C 40						
Minimum spacing		s_{min}	[mm]							
Minimum edge distance		c_{min}	[mm]							

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Intended use
Installation parameters

Annex B 4

Table B4: Parameters for cleaning and setting accessories

					
Anchor rod	**Perforated sleeve**	**d_0 Drill bit - ∅ HD, CA**	**d_b Brush - ∅**		**$d_{b,min}$ min. Brush - ∅**
[mm]		[mm]		[mm]	[mm]
Autoclaved Aerated Concrete ACC and solid masonry (without sleeve)					
M8	-	10	WIT-RMB10	12	10,5
M10	-	12	WIT-RMB12	14	12,5
M12	-	14	WIT-RMB16	18	16,5
M16	-	18	WIT-RMB18	20	18,5
Solid and hollow masonry (with sleeve)					
M8	SH 12x80	12	WIT-RMB12	14	12,5
M8 / M10	SH 16x85	16	WIT-RMB16	18	16,5
	SH 16x130				
	SH 16x130/330				
M12 / M16	SH 20x85	20	WIT-RMB20	22	20,5
	SH 20x130				
	SH 20x200				

Cleaning and installation tools

Hand pump

Compressed air tool

Brush WIT-RMB

Brush extension WIT-RMB-L

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex B 5**
Intended use Cleaning and installation accessories	

Table B5: Working and curing time WIT-PM 200

Temperature in base material			Maximum working time	Minimum curing time
T			t_{work}	t_{cure}
- 5 °C	to	- 1 °C	90 min	6 h
+ 0 °C	to	+ 4 °C	45 min	3 h
+ 5 °C	to	+ 9 °C	25 min	2 h
+ 10 °C	to	+ 14 °C	20 min	100 min
+ 15 °C	to	+ 19 °C	15 min	80 min
+ 20 °C	to	+ 29 °C	6 min	45 min
+ 30 °C	to	+ 34 °C	4 min	25 min
+ 35 °C	to	+ 39 °C	2 min	20 min
Cartridge temperature			+5°C up to +40°C	

Table B6: Working and curing time WIT-PM 200 express

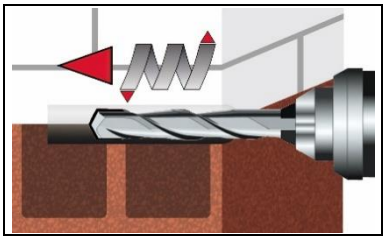
Temperature in base material			Maximum working time	Minimum curing time
T			t_{work}	t_{cure}
- 10 °C	to	- 6 °C	60 min	4 h
- 5 °C	to	- 1 °C	45 min	2 h
+ 0 °C	to	+ 4 °C	25 min	80 min
+ 5 °C	to	+ 9 °C	10 min	45 min
+ 10 °C	to	+ 14 °C	4 min	25 min
+ 15 °C	to	+ 19 °C	3 min	20 min
+ 20 °C	to	+ 29 °C	2 min	15 min
Cartridge temperature			0°C up to +30°C	

Table B7: Working and curing time WIT-PM 200 tropical

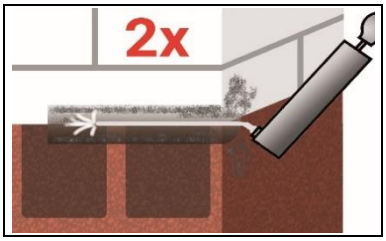
Temperature in base material			Maximum working time	Minimum curing time
T			t_{work}	t_{cure}
+ 10 °C	to	+ 14 °C	30 min	5 h
+ 15 °C	to	+ 19 °C	20 min	210 min
+ 20 °C	to	+ 29 °C	15 min	145 min
+ 30 °C	to	+ 34 °C	10 min	80 min
+ 35 °C	to	+ 39 °C	6 min	45 min
+ 40 °C	to	+ 44 °C	4 min	25 min
+45°C			2 min	20 min
Cartridge temperature			+5°C up to +45°C	

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex B 6**
Intended use Working and curing time	

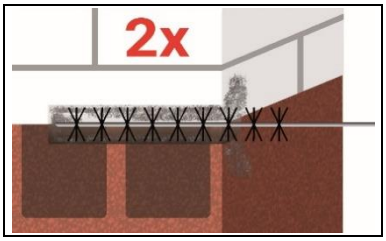
Installation instructions



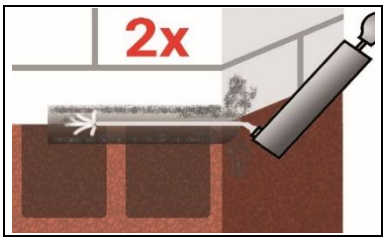
1. Drill a hole to the required embedment depth with drilling method according to Annex C 5 - C 40.
Drill bit diameter according to Table B4.



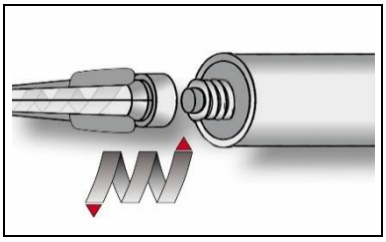
2a. Blow the bore hole clean minimum 2x from the bottom or back by hand pump or compressed air tool (Annex B 5).



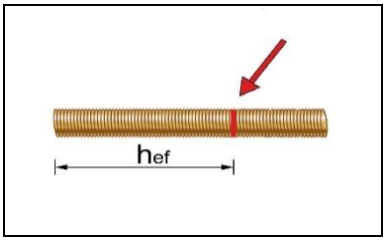
2b. Attach the brush WIT-RMB according to Table B4 to a drilling machine or a cordless screwdriver.
Brush the bore hole minimum 2x with brush over the entire embedment depth in a twisting motion (if necessary, use a brush extension WIT-RMB-L).



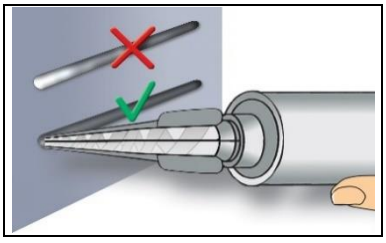
2c. Finally blow the bore hole clean minimum 2x from the bottom or back by hand pump or compressed air tool (Annex B 5).



3. Screw on static-mixing nozzle CRW 14W, Fill & Clean, and load the cartridge into an appropriate dispensing tool.
If necessary, cut off the foil tube clip before use.
For every working interruption longer than the maximum working time t_{work} (Annex B 6) as well as for new cartridges, a new static-mixer shall be used.



4. Mark embedment depth on the anchor rod.
The anchor rod shall be free of dirt, grease, oil or other foreign material.

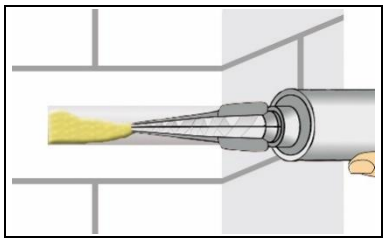


5. Not proper mixed mortar is not sufficient for fastening.
Dispense and discard mortar until an uniform grey colour is shown (at least 3 full strokes; for foil tube cartridges at least 6 full strokes).

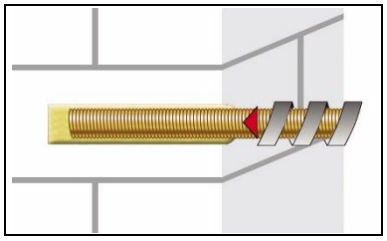
Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex B 7**
Intended use Installation instruction	

Installation instructions (continuation)

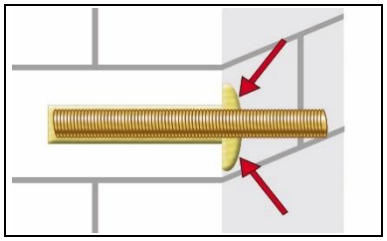
Installation without sleeve



6. Starting at bottom of the hole and fill the hole up to approximately two-thirds with adhesive. (If necessary, a mixer nozzle extension shall be used.)
Slowly withdraw of the static mixing nozzle avoid creating air pockets
Observe the temperature related working time t_{work} (Annex B 6).

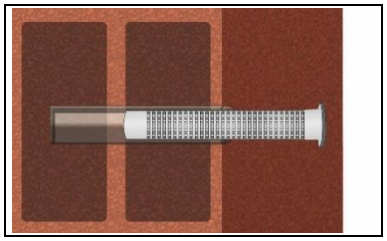


7. Insert the anchor rod while turning slightly up to the embedment mark.

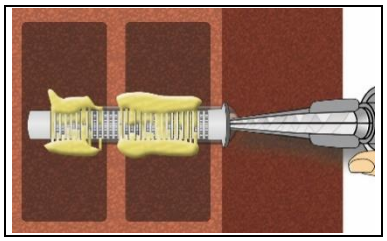


8. Annular gap between anchor rod and base material must be completely filled with mortar. For push through installation the annular gap between anchor rod and fixture must be filled with mortar.
Otherwise, the installation must be repeated starting from step 6 before the maximum working time t_{work} has expired.

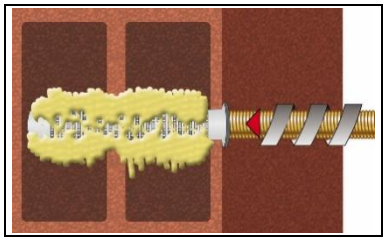
Installation with sleeve



6. Insert the perforated sleeve flush with the surface of the masonry. Only use sleeves that have the right length. Never cut the sleeve in anchoring area (h_{ef}).
For installation through insulation, the sleeve SH 16x130/330 can be cutted at the top end according to the insulation thickness.



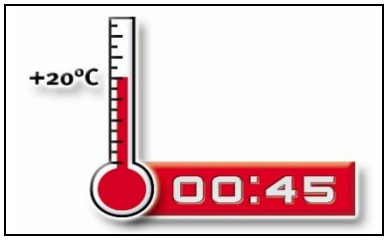
7. Starting from the bottom or back fill the sleeve with adhesive. (If necessary, a mixer nozzle extension shall be used.)
Refer to the cartridge label or the technical data sheet for the exact amount of mortar For push through installation the sleeve within the fixture must also be fully filled with mortar.
Observe the temperature related working time t_{work} (Annex B 6).



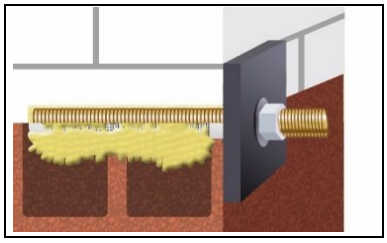
8. Insert the anchor rod with a slight twist up to the mark.

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex B 8**
Intended use Installation instruction (continuation)	

Installation instructions (continuation)



9. Temperature related curing time t_{cure} (Annex B 6) must be observed.
Do not move or load the fastener during curing time.



10. Install the fixture by using a calibrated torque wrench. Observe maximum installation torque according to Annex C 5 – C 40.

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex B 9**
Intended use Installation instruction (continuation)	

Table C1: β-factors for job-site testing under tension loading

Brick	Installation & Use conditions	Anchor size	β-factor	
			T_a: 24°C / 40°C	T_b: 50°C / 80°C
AAC Annex C 5 to Annex C 10	d/d	M8	0,82	0,70
		M10		
		M12	0,70	0,60
		M16		
	w/w	M8	0,82	0,70
		M10	0,63	0,54
		M12	0,48	0,41
		M16		
All bricks Annex C 11 to Annex C 40	d/d w/d w/w	For all anchors	0,72	0,50

Table C2: Characteristic tension, shear resistance and bending moment of threaded rod

Threaded rod				**M8**	**M10**	**M12**	**M16**
Cross section area		A_S	[mm²]	36,6	58	84,3	157
Characteristic tension resistance, Steel failure 1)							
Steel, Property class 4.6 and 4.8		$N_{Rk,s}$	[kN]	15 (13)	23 (21)	34	63
Steel, Property class 5.6 and 5.8		$N_{Rk,s}$	[kN]	18 (17)	29 (27)	42	78
Steel, Property class 8.8		$N_{Rk,s}$	[kN]	29 (27)	46 (43)	67	125
Stainless steel A2, A4 and HCR, class 50		$N_{Rk,s}$	[kN]	18	29	42	79
Stainless steel A2, A4 and HCR, class 70		$N_{Rk,s}$	[kN]	26	41	59	110
Stainless steel A4 and HCR, class 80		$N_{Rk,s}$	[kN]	29	46	67	126
Characteristic tension resistance, Partial factor 2)							
Steel, Property class 4.6 and 5.6		$\gamma_{Ms,N}$	[-]	2,0			
Steel, Property class 4.8, 5.8 and 8.8		$\gamma_{Ms,N}$	[-]	1,5			
Stainless steel A2, A4 and HCR, class 50		$\gamma_{Ms,N}$	[-]	2,86			
Stainless steel A2, A4 and HCR, class 70		$\gamma_{Ms,N}$	[-]	1,87			
Stainless steel A4 and HCR, class 80		$\gamma_{Ms,N}$	[-]	1,6			
Characteristic shear resistance, Steel failure 1)							
Without lever arm	Steel, Property class 4.6 and 4.8	$V^0_{Rk,s}$	[kN]	7 (7)	12 (11)	17	31
	Steel, Property class 5.6 and 5.8	$V^0_{Rk,s}$	[kN]	9 (8)	15 (13)	21	39
	Steel, Property class 8.8	$V^0_{Rk,s}$	[kN]	15 (13)	23 (21)	34	63
	Stainless steel A2, A4 and HCR, class 50	$V^0_{Rk,s}$	[kN]	9	15	21	39
	Stainless steel A2, A4 and HCR, class 70	$V^0_{Rk,s}$	[kN]	13	20	30	55
	Stainless steel A4 and HCR, class 80	$V^0_{Rk,s}$	[kN]	15	23	34	63
With lever arm	Steel, Property class 4.6 and 4.8	$M^0_{Rk,s}$	[Nm]	15 (13)	30 (27)	52	133
	Steel, Property class 5.6 and 5.8	$M^0_{Rk,s}$	[Nm]	19 (16)	37 (33)	65	166
	Steel, Property class 8.8	$M^0_{Rk,s}$	[Nm]	30 (26)	60 (53)	105	266
	Stainless steel A2, A4 and HCR, class 50	$M^0_{Rk,s}$	[Nm]	19	37	66	167
	Stainless steel A2, A4 and HCR, class 70	$M^0_{Rk,s}$	[Nm]	26	52	92	232
	Stainless steel A4 and HCR, class 80	$M^0_{Rk,s}$	[Nm]	30	59	105	266
Characteristic shear resistance, Partial factor 2)							
Steel, Property class 4.6 and 5.6		$\gamma_{Ms,V}$	[-]	1,67			
Steel, Property class 4.8, 5.8 and 8.8		$\gamma_{Ms,V}$	[-]	1,25			
Stainless steel A2, A4 and HCR, class 50		$\gamma_{Ms,V}$	[-]	2,38			
Stainless steel A2, A4 and HCR, class 70		$\gamma_{Ms,V}$	[-]	1,56			
Stainless steel A4 and HCR, class 80		$\gamma_{Ms,V}$	[-]	1,33			

1) Values are only valid for the given stress area A_S. Values in brackets are valid for undersized threaded rods with smaller stress area A_S for hot-dip galvanised threaded rods according to EN ISO 10684:2004+AC:2009.

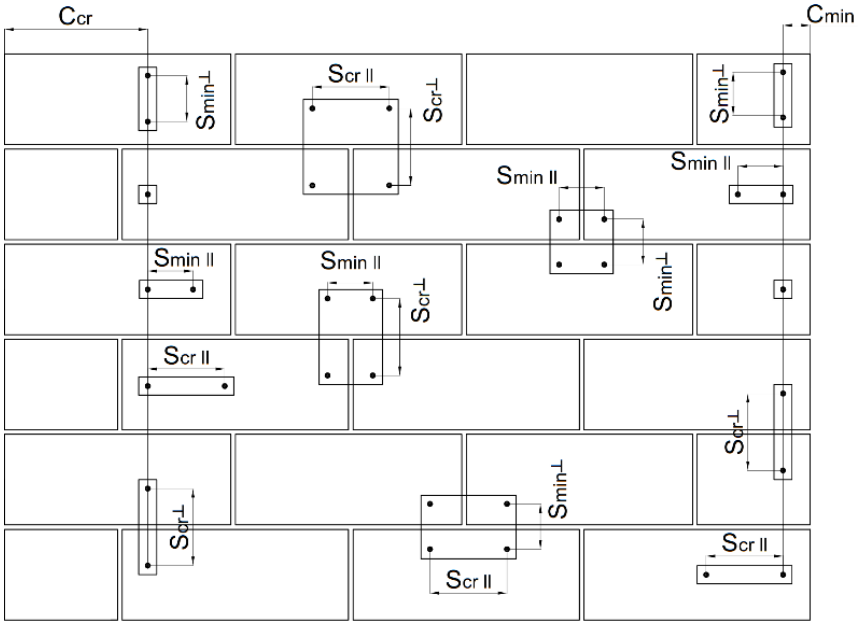
2) in absence of national regulation

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

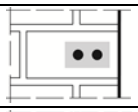
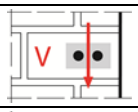
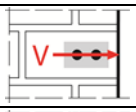
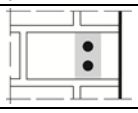
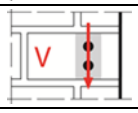
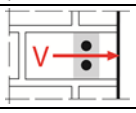
Performances
Characteristic tension, shear resistance and bending moment of threaded rod

Annex C 2

Spacing and edge distances



c_{cr} = Characteristic edge distance
c_{min} = Minimum edge distance
$s_{cr\,II}$; ($s_{min\,II}$) = Characteristic (minimum) spacing for anchors placed parallel to horizontal joint
$s_{cr\,\perp}$; ($s_{min\,\perp}$) = Characteristic (minimum) spacing for anchors placed perpendicular to horizontal joint

Load direction / Anchor position	Tension load	Shear load parallel to free edge V_{II}		Shear load perpendicular to free edge $V_{\perp}$	
Anchors parallel to horizontal joint $s_{cr,II}$; ($s_{min,II}$)			$\alpha_{g\,II,\,VII}$		$\alpha_{g\,II,\,V\perp}$
Anchors vertical to horizontal joint $s_{cr,\perp}$; ($s_{min,\perp}$)			$\alpha_{g\,\perp,\,VII}$		$\alpha_{g\,\perp,\,V\perp}$

$\alpha_{g\,II,\,N}$ = Group factor for anchors parallel to horizontal joint under tension load
$\alpha_{g\,\perp,\,N}$ = Group factor for anchors perpendicular to horizontal joint under tension load
$\alpha_{g\,II,\,VII}$ = Group factor for anchors parallel to horizontal joint under shear load parallel to the free edge
$\alpha_{g\,\perp,\,VII}$ = Group factor for anchors perpendicular to horizontal joint under shear load parallel to the free edge
$\alpha_{g\,II,\,V\perp}$ = Group factor for anchors parallel to horizontal joint under shear load perpendicular to the free edge
$\alpha_{g\,\perp,\,V\perp}$ = Group factor for anchors perpendicular to hor. joint under shear load perpendicular to the free edge

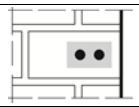
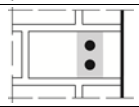
Group of 2 anchors: $N^{g}_{Rk} = \alpha_{g,N} * N_{RK,b}$
$V^{g}_{Rk} = \alpha_{g,V} * V_{Rk,b}$
Group of 4 anchors: $N^{g}_{Rk} = \alpha_{g\,II,\,N} * \alpha_{g\,\perp,\,N} * N_{RK,b}$
$V^{g}_{Rk} = \alpha_{g,II,v} * \alpha_{g\,\perp,\,V} * V_{Rk,b}$

Equations depend on anchor position and load direction (see table above).

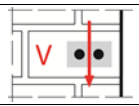
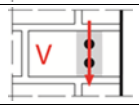
Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 3**
Performances Edge distance and anchor spacing	

Group factor, valid for all brick types

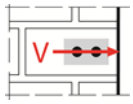
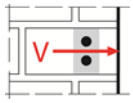
Group factor for anchor group in case of tension loading

Configuration		with c ≥	with s ≥			
II: anchors placed parallel to horizontal joint		c_{cr}	s_{cr}	$\alpha_{g\,II,\,N}$	[-]	2,0
⊥: anchors placed perpendicular to horizontal joint		c_{cr}	s_{cr}	$\alpha_{g\,\perp,\,N}$		2,0

Group factor for anchor group in case of shear loading parallel to free edge

Configuration		with c ≥	with s ≥			
II: anchors placed parallel to horizontal joint		c_{cr}	s_{cr}	$\alpha_{g\,II,\,VII}$	[-]	2,0
⊥: anchors placed perpendicular to horizontal joint		c_{cr}	s_{cr}	$\alpha_{g\,\perp,\,VII}$		2,0

Group factor for anchor group in case of shear loading perpendicular to free edge

Configuration		with c ≥	with s ≥			
II: anchors placed parallel to horizontal joint		c_{cr}	s_{cr}	$\alpha_{g\,II,\,V\perp}$	[-]	2,0
⊥: anchors placed perpendicular to horizontal joint		c_{cr}	s_{cr}	$\alpha_{g\,\perp,V\perp}$		2,0

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performances
Group factor

Annex C 4

Brick type: Autoclaved Aerated Concrete – AAC2

Table C3: Description

Brick type	Autoclaved Aerated Concrete AAC2
Bulk density [kg/dm³]	0,35
Compressive strength [N/mm²]	2
Code	EN 771-4
Producer (country code)	e.g. Ytong (CZ)
Brick dimensions [mm]	599 x 375 x 249
Drilling method	Rotary drilling

Table C4: Installation parameter (Edge and spacing distances)

Anchor size	**Effective anchorage depth**	**Edge distance**	**Spacing**	**Maximum installation torque**
	h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II} = s_{min\ \perp}$	max T_{inst}
	[mm]			[Nm]
M8	80	120	240	2
M10	90	135	270	
M12	100	150	300	
M16	100	150	300	

Table C5: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,29	0,58	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,23	1,84
90		0,23	0,46		0,87	1,31
100		0,39	0,79		1,29	1,94

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 5**
Performance Autoclaved Aerated Concrete – AAC2 Brick description Installation parameters, Displacements	

Brick type: Autoclaved Aerated Concrete – AAC2

Table C6: Characteristic values of resistance under tension and shear loads

Anchor size	Effective anchorage depth	Characteristic resistance				
		Use category				
		d/d		w/d w/w		d/d w/d w/w
		40°C / 24°C	80°C / 50°C	40°C / 24°C	80°C / 50°C	For all temperature range
	h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
	[mm]	[kN]				
Compressive strength $f_b \geq 2$ N/mm²						
M8	80	0,9	0,9	0,9	0,9	1,5
M10	90	0,9	0,9	0,9	0,75	2,0
M12	100	1,5	1,5	1,2	0,9	2,5
M16	100	1,5	1,5	1,2	0,9	3,5

1) For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

2) For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance Autoclaved Aerated Concrete – AAC2
Characteristic values of resistance under tension and shear load

Annex C 6

Brick type: Autoclaved Aerated Concrete AAC4

Table C7: Description

Brick type	Autoclaved Aerated Concrete AAC4
Bulk density [kg/dm^3]	0,50
Compressive strength [N/mm^2]	4
Code	EN 771-4
Producer (country code)	e.g. Ytong (CZ)
Brick dimensions [mm]	499 x 375 x 249
Drilling method	Rotary drilling

Table C8: Installation parameter (Edge and spacing distances)

Anchor size	**Effective anchorage depth**	**Edge distance**	**Spacing**	**Maximum installation torque**
	h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II} = s_{min\ \perp}$	max T_{inst}
	[mm]			[Nm]
M8	80	120	240	2
M10	90	135	270	
M12	100	150	300	
M16	100	150	300	

Table C9: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,23	0,47	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,23	1,84
90		0,58	1,17		0,87	1,31
100		0,10	0,21		1,29	1,94

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 7**
Performance Autoclaved Aerated Concrete – AAC4 Brick description Installation parameters, Displacement	

Brick type: Autoclaved Aerated Concrete AAC4

Table C10: Characteristic values of resistance under tension and shear loads

Anchor size	Effective anchorage depth	Characteristic resistance				
		Use category				
		d/d		w/d w/w		d/d w/d w/w
		40°C / 24°C	80°C / 50°C	40°C / 24°C	80°C / 50°C	For all temperature range
	h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
	[mm]	[kN]				
Compressive strength $f_b \geq 4$ N/mm²						
M8	80	0,9	0,9	0,9	0,9	1,5
M10	90	2,5	2,0	1,5	1,5	2,0
M12	100	2,5	2,0	2,0	1,5	2,5
M16	100	3,5	3,0	2,0	2,0	3,5

1) For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

2) For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance Autoclaved Aerated Concrete – AAC4
Characteristic values of resistance under tension and shear load

Annex C 8

Brick type: Autoclaved Aerated Concrete AAC6

Table C11: Description

Brick type	Autoclaved Aerated Concrete AAC6
Bulk density [kg/dm³]	0,60
Compressive strength [N/mm²]	6
Code	EN 771-4
Producer (country code)	e.g. Porit (DE)
Brick dimensions [mm]	499 x 240 x 249
Drilling method	Rotary drilling

Table C12: Installation parameter (Edge and spacing distances)

Anchor size	**Effective anchorage depth**	**Edge distance**	**Spacing**	**Maximum installation torque**
	h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II} = s_{min\ \perp}$	max T_{inst}
	[mm]			[Nm]
M8	80	120	240	2
M10	90	135	270	
M12	100	150	300	
M16	100	150	300	

Table C13: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,54	1,09	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,32	0,48
90		0,85	1,69		1,49	2,23
100		0,10	0,19		1,67	2,50

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 9**
Performance Autoclaved Aerated Concrete – AAC6 Brick description Installation parameters, Displacements	

Brick type: Autoclaved Aerated Concrete AAC6

Table C14: Characteristic values of resistance under tension and shear loads

Anchor size	Effective anchorage depth	Characteristic resistance				
		Use category				
		d/d		w/d w/w		d/d w/d w/w
		40°C / 24°C	80°C / 50°C	40°C / 24°C	80°C / 50°C	For all temperature range
	h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
	[mm]	[kN]				
Compressive strength $f_b \geq 6$ N/mm²						
M8	80	2,0	2,0	2,0	2,0	5,5
M10	90	3,0	2,5	2,5	2,0	9,0
M12	100	4,5	3,5	3,0	2,5	9,0
M16	100	5,5	4,5	3,5	3,0	11,0

1) For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

2) For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance Autoclaved Aerated Concrete – AAC6
Characteristic values of resistance under tension and shear load

Annex C 10

Brick type: Calcium silicate solid brick KS-NF

Table C15: Description

Brick type	Calcium silicate solid brick KS-NF
Bulk density [kg/dm³]	2,0
Compressive strength [N/mm²]	10, 20 or 27
Code	EN 771-2
Producer (country code)	e.g. Wemding (DE)
Brick dimensions [mm]	240 x 115 x 71
Drilling method	Hammer drilling

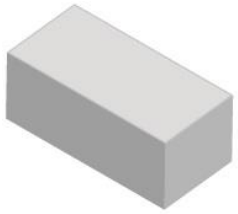


Table C16: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	**Edge distance**	**Spacing**	**Maximum installation torque**
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
		[mm]			[Nm]
M8	**-**	80	120	240	10
M10	**-**	90	135	270	20
M12 / M16	**-**	100	150	300	
M8	SH 12x80	80	120	240	10
	SH 16x85	85	127	255	
M10	SH 16x85	85	127	255	20
M8 / M10	SH 16x130	130	195	390	
	SH 16x130/330	130	195	390	
M12 / M16	SH 20x85	85	127	255	
	SH 20x130	130	195	390	
	SH 20x200	200	300	600	

Table C17: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1{,}4 \bullet \gamma_M}$	0,08	0,16	$\frac{V_{Rk}}{1{,}4 \bullet \gamma_M}$	3,07	4,61
85		0,26	0,52		1,46	2,19
90		0,09	0,18		1,50	2,25
100		0,10	0,20		1,03	1,53
130 ; 200		0,22	0,44		1,16	1,74

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	
Performance Calcium solid brick KS-NF Brick description Installation parameters, Displacements	**Annex C 11**

Brick type: Calcium silicate solid brick KS-NF

Table C18: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 10$ N/mm²					
M8	**-**	80	3,0	2,0	3,0
M10	**-**	90	3,0	2,0	3,0
M12	**-**	100	4,0	2,5	3,5
M16	**-**	100	3,0	2,0	3,5
M8	SH 12x80	80	2,5	2,0	2,5
	SH 16x85	85	2,5	2,0	3,0
	SH16x130 / SH16x130/330	130	4,0	2,5	4,0
M10	SH 16x85	85	2,5	2,0	3,0
	SH16x130/330	130	4,5	3,0	4,0
M12 / M16	SH 20x85	85	2,5	2,0	3,0
	SH 20x130 / SH 20x200	130 / 200	4,5	2,5	4,0
Compressive strength $f_b \geq 20$ N/mm²					
M8	-	80	4,5	3,0	4,5
M10	-	90	4,5	3,0	4,5
M12	-	100	5,5	3,5	5,0
M16	-	100	4,5	3,0	5,0
M8	SH 12x80	80	4,0	2,5	4,0
	SH 16x85	85	4,0	2,5	4,5
	SH16x130 / SH16x130/330	130	6,0	3,5	5,5
M10	SH 16x85	85	4,0	2,5	4,5
	SH 16x130/330	130	6,0	4,0	5,5
M12 / M16	SH 20x85	85	4,0	2,5	5,0
	SH 20x130 / SH 20x200	130 / 200	6,0	4,0	5,5
Compressive strength $f_b \geq 27$ N/mm²					
M8	-	80	5,5	3,5	5,0
M10	-	90	5,5	3,5	5,5
M12	-	100	6,5	4,5	6,0
M16	-	100	5,5	3,5	6,0
M8	SH 12x80	80	4,5	3,0	4,5
	SH 16x85	85	4,5	3,0	5,5
	SH16x130 / SH16x130/330	130	6,5	4,5	6,5
M10	SH 16x85	85	4,5	3,0	5,5
	SH 16x130/330	130	6,5	4,5	6,5
M12 / M16	SH 20x85	85	4,5	3,0	5,5
	SH 20x130 / SH 20x200	130 / 200	6,5	4,5	6,5

[1)] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054
[2)] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

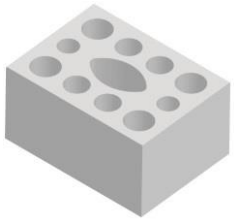
Performance Calcium solid brick KS-NF
Characteristic values of resistance under tension and shear load

Annex C 12

Brick type: Calcium silicate hollow brick KS L-3DF

Table C19: Description

Brick type	Calcium silicate hollow brick KS L-3DF
Bulk density [kg/dm³]	1,4
Compressive strength [N/mm²]	8, 12 or 14
Code	EN 771-2
Producer (country code)	e.g. Wemding (DE)
Brick dimensions [mm]	240 x 175 x 113
Drilling method	Rotary drilling



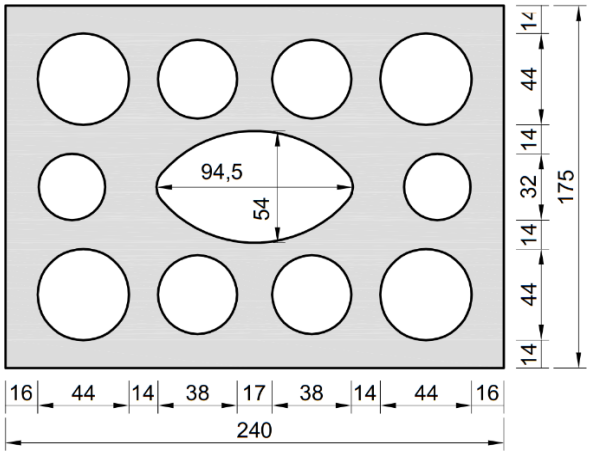


Table C20: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II}$	$s_{min\ \perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	240	113	8
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				
	SH 20x200	200				

Table C21: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,36	0,73	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,82	1,23
85		1,62	3,24		1,83	2,75
130 ; 200		1,70	3,40		1,98	2,98

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 13**
Performance Calcium hollow brick KS L-3DF Brick description Installation parameters, Displacements	

Brick type: Calcium silicate hollow brick KS L-3DF

Table C22: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 8$ N/mm²					
M8	SH 12x80	80	1,5	0,9	2,0
	SH 16x85	85	1,5	0,9	2,5
	SH 16x130	130	2,5	1,5	3,0
	SH 16x130/330	130	2,5	1,5	3,0
M10	SH 16x85	85	1,5	0,9	2,5
	SH 16x130	130	2,5	1,5	3,0
	SH 16x130/330	130	2,5	1,5	3,0
M12	SH 20x85	85	1,5	0,9	3,0
	SH 20x130 / SH 20x200	130 / 200	2,5	1,5	3,0
M16	SH 20x85	85	1,5	0,9	3,0
	SH 20x130 / SH 20x200	130 / 200	2,5	1,5	4,0
Compressive strength $f_b \geq 12$ N/mm²					
M8	SH 12x80	80	2,0	1,2	2,5
	SH 16x85	85	2,0	1,2	3,5
	SH 16x130	130	3,5	2,0	4,5
	SH 16x130/330	130	3,5	2,0	4,5
M10	SH 16x85	85	2,0	1,2	3,5
	SH 16x130	130	3,5	2,0	4,5
	SH 16x130/330	130	3,5	2,0	4,5
M12	SH 20x85	85	2,0	1,2	3,5
	SH 20x130 / SH 20x200	130 / 200	3,5	2,0	4,5
M16	SH 20x85	85	2,0	1,2	3,5
	SH 20x130 / SH 20x200	130 / 200	3,5	2,0	5,0
Compressive strength $f_b \geq 14$ N/mm²					
M8	SH 12x80	80	2,5	1,5	3,0
	SH 16x85	85	2,5	1,5	4,0
	SH 16x130	130	4,0	3,0	5,0
	SH 16x130/330	130	4,0	3,0	5,0
M10	SH 16x85	85	2,5	1,5	4,0
	SH 16x130	130	4,0	3,0	5,0
	SH 16x130/330	130	4,0	3,0	5,0
M12	SH 20x85	85	2,5	1,5	4,5
	SH 20x130 / SH 20x200	130 / 200	4,0	3,0	5,0
M16	SH 20x85	85	2,5	1,5	4,5
	SH 20x130 / SH 20x200	130 / 200	4,0	3,0	6,0

[1)] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2)] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance Calcium hollow brick KS L-3DF
Characteristic values of resistance under tension and shear load

Annex C 14

Brick type: Calcium silicate hollow brick KS L-12DF

Table C23: Description

Brick type	Calcium silicate hollow brick KS L-12DF
Bulk density [kg/dm³]	1,40
Compressive strength [N/mm²]	10, 12 or 16
Code	EN 771-2
Producer (country code)	e.g. Wemding (DE)
Brick dimensions [mm]	498 x 175 x 238
Drilling method	Rotary drilling

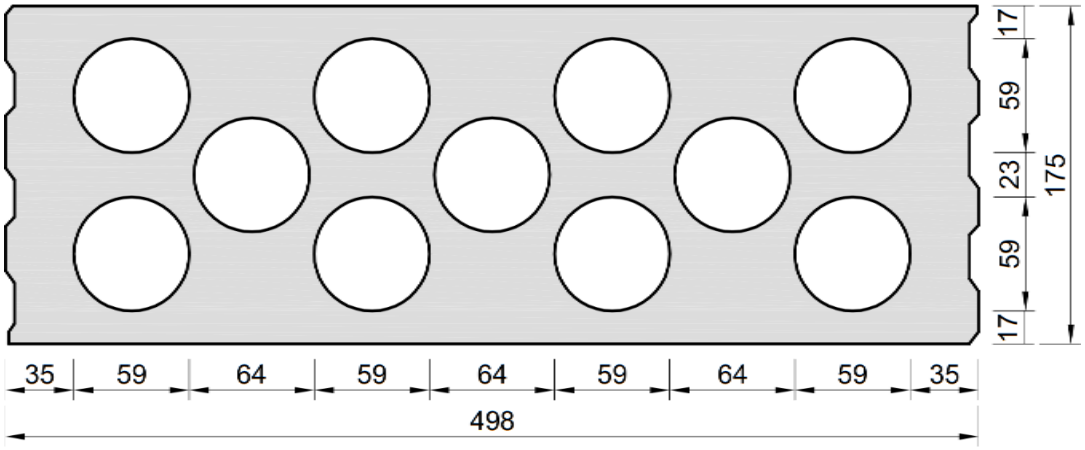


Table C24: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ \parallel}$	$s_{min\ \perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	498	238	2
M8 / M10	SH 16x85	85				4
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C25: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,21	0,42	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,77	2,66
85		0,13	0,26		3,89	5,83
130		0,22	0,44		4,35	6,52

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 15**
Performance Calcium hollow brick KS L-12DF Brick description Installation parameters, Displacement	

Brick type: Calcium silicate hollow brick KS L-12DF

Table C26: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 10$ N/mm²					
M8	SH 12x80	80	0,4	0,3	3,0
	SH 16x85	85	1,2	0,9	6,0
	SH 16x130	130	3,5	2,5	7,0
	SH 16x130/330	130	3,5	2,5	7,0
M10	SH 16x85	85	1,2	0,9	6,0
	SH 16x130	130	3,5	2,5	7,0
	SH 16x130/330	130	3,5	2,5	7,0
M12 / M16	SH 20x85	85	1,2	0,9	6,0
	SH 20x130 / SH 20x200	130 / 200	3,5	2,5	7,0
Compressive strength $f_b \geq 12$ N/mm²					
M8	SH 12x80	80	0,4	0,3	3,5
	SH 16x85	85	1,5	0,9	7,0
	SH 16x130	130	4,5	3,0	8,0
	SH 16x130/330	130	4,5	3,0	8,0
M10	SH 16x85	85	1,5	0,9	7,0
	SH 16x130	130	4,5	3,0	8,0
	SH 16x130/330	130	4,5	3,0	8,0
M12 / M16	SH 20x85	85	1,5	0,9	7,0
	SH 20x130 / SH 20x200	130 / 200	4,5	3,0	8,0
Compressive strength $f_b \geq 16$ N/mm²					
M8	SH 12x80	80	0,5	0,4	4,0
	SH 16x85	85	2,0	1,2	9,0
	SH 16x130	130	5,5	3,5	10,0
	SH 16x130/330	130	5,5	3,5	10,0
M10	SH 16x85	85	2,0	1,2	9,0
	SH 16x130	130	5,5	3,5	10,0
	SH 16x130/330	130	5,5	3,5	10,0
M12 / M16	SH 20x85	85	2,0	1,2	8,5
	SH 20x130 / SH 20x200	130 / 200	5,5	3,5	10,0

[1)] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2)] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance Calcium hollow brick KS L-12DF
Characteristic values of resistance under tension and shear load

Annex C 16

Brick type: Clay solid brick Mz-DF

Table C27: Description

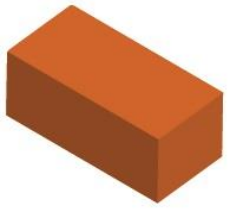
Brick type	Clay solid brick Mz-DF	
Bulk density [kg/dm³]	1,64	
Compressive strength [N/mm²]	10, 20 or 28	
Code	EN 771-1	
Producer (country code)	e.g. Unipor (DE)	
Brick dimensions [mm]	240 x 115 x 55	
Drilling method	Hammer drilling	

Table C28: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	**Edge distance**	**Spacing**	**Maximum installation torque**
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II} = s_{min\ \perp}$	max T_{inst}
		[mm]			[Nm]
M8	**-**	80	120	240	6
	SH 12x80	80	120	240	
	SH 16x85	85	127	255	
M10	**-**	90	135	270	10
M12 / M16	**-**	100	150	300	
M10	SH 16x85	85	127	255	8
	SH 16x130	130	195	390	
	SH 16x130/330	130	195	390	
M12 / M16	SH 20x85	85	127	255	
	SH 20x130	130	195	390	
	SH 20x200	200	300	600	

Table C29: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1{,}4 \bullet \gamma_M}$	0,12	0,24	$\frac{V_{Rk}}{1{,}4 \bullet \gamma_M}$	2,27	3,41
85		0,13	0,26		1,22	1,83
90		0,06	0,13		0,71	1,06
100		0,18	0,35		0,43	0,64
130 ; 200		0,42	0,85		1,22	1,83

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 17**
Performance Clay solid brick Mz-DF Brick description Installation parameters, Displacements	

Brick type: Clay solid brick Mz-DF

Table C30: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 10$ N/mm²					
M8	**-**	80	1,5	1,2	3,0
M10	**-**	90	1,5	1,2	3,5
M12	**-**	100	1,5	0,9	5,0
M16	**-**	100	2,5	1,5	5,0
M8	SH 12x80	80	2,0	1,5	3,0
	SH 16x85	85	2,0	1,5	3,0
	SH 16x130 / SH 16x130/330	130	3,0	2,0	3,0
M10	SH 16x85	85	2,0	1,5	3,5
	SH 16x130 / SH 16x130/330	130	3,0	2,0	3,5
M12 / M16	SH 20x85	85	2,0	1,5	3,5
	SH 20x130 / SH 20x200	130 / 200	3,0	2,0	3,5
Compressive strength $f_b \geq 20$ N/mm²					
M8	**-**	80	2,5	1,5	4,5
M10	**-**	90	2,5	1,5	5,5
M12	**-**	100	2,0	1,5	7,5
M16	**-**	100	3,5	2,5	7,5
M8	SH 12x80	80	3,0	2,0	4,0
	SH 16x85	85	3,0	2,0	4,5
	SH 16x130 / SH 16x130/330	130	4,0	2,5	4,5
M10	SH 16x85	85	3,0	2,0	5,0
	SH 16x130 / SH 16x130/330	130	4,5	3,0	5,0
M12 / M16	SH 20x85	85	3,0	2,0	5,0
	SH 20x130 / SH 20x200	130 / 200	4,5	3,0	5,0
Compressive strength $f_b \geq 28$ N/mm²					
M8	**-**	80	3,0	2,0	5,5
M10	**-**	90	3,0	2,0	6,5
M12	**-**	100	2,5	1,5	9,0
M16	**-**	100	4,5	3,0	9,0
M8	SH 12x80	80	3,5	2,5	5,0
	SH 16x85	85	3,5	2,5	5,0
	SH 16x130 / SH 16x130/330	130	5,0	3,5	5,0
M10	SH 16x85	85	3,5	2,5	6,0
	SH 16x130 / SH 16x130/330	130	5,0	3,5	6,0
M12 / M16	SH 20x85	85	3,5	2,5	6,0
	SH 20x130 / SH 20x200	130 / 200	5,0	3,5	6,0

1) For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

2) For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

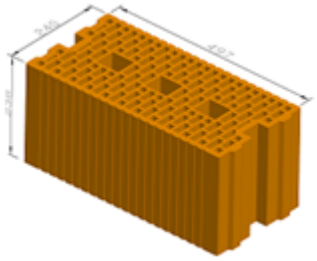
Performance Clay solid brick Mz-DF
Characteristic values of resistance under tension and shear load

Annex C 18

Brick type: Clay hollow brick HLz-16DF

Table C31: Description

Brick type	Clay hollow brick HLz-16DF
Bulk density [kg/dm³]	0,83
Compressive strength [N/mm²]	6, 9, 12 or 14
Code	EN 771-1
Producer (country code)	e.g. Unipor (DE)
Brick dimensions [mm]	497 x 238 x 240
Drilling method	Rotary drilling



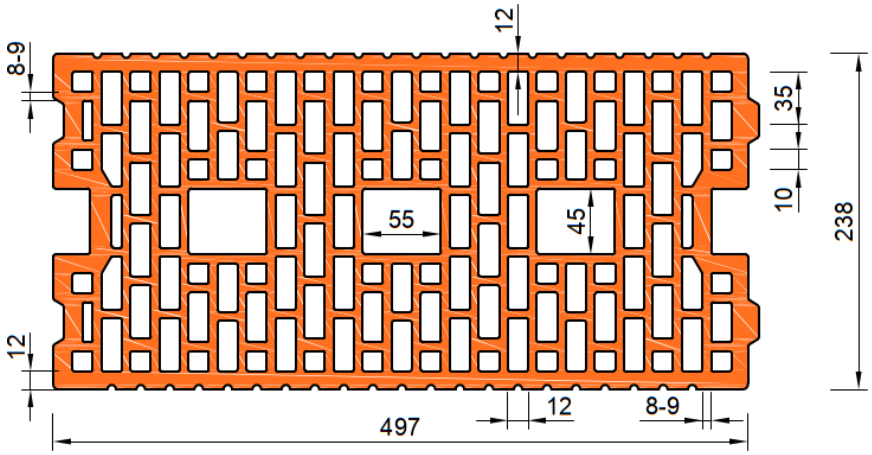


Table C32: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II}$	$s_{min} \perp$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	497	238	6
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				
	SH 20x200	200				

Table C33: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,27	0,55	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,02	1,53
85		0,55	1,10		2,14	3,22
130 ; 200		0,19	0,38		2,26	3,39

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 19**
Performance Clay hollow brick HLz-16DF Brick description Installation parameters, Displacements	

Brick type: Clay hollow brick HLz-16DF

Table C34: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	1,2	0,75	2,5
	SH 16x85	85	1,5	1,2	4,0
	SH 16x130	130	2,5	1,5	4,0
	SH 16x130/330	130	2,5	1,5	4,0
M10	SH 16x85	85	1,5	1,2	4,0
	SH 16x130	130	2,5	1,5	6,0
	SH 16x130/330	130	2,5	1,5	6,0
M12 / M16	SH 20x85	85	2,0	1,5	4,0
	SH 20x130 / SH 20x200	130/ 200	2,5	1,5	6,0
Compressive strength $f_b \geq 9$ N/mm²					
M8	SH 12x80	80	1,2	0,9	3,0
	SH 16x85	85	2,0	1,5	4,5
	SH 16x130	130	3,0	2,0	5,0
	SH 16x130/330	130	3,0	2,0	5,0
M10	SH 16x85	85	2,0	1,5	5,0
	SH 16x130	130	3,0	2,0	7,0
	SH 16x130/330	130	3,0	2,0	7,0
M12 / M16	SH 20x85	85	2,5	2,0	5,0
	SH 20x130 / SH 20x200	130/ 200	3,0	2,0	7,0
Compressive strength $f_b \geq 12$ N/mm²					
M8	SH 12x80	80	1,5	1,2	3,5
	SH 16x85	85	2,5	1,5	5,5
	SH 16x130	130	3,5	2,5	6,0
	SH 16x130/330	130	3,5	2,5	6,0
M10	SH 16x85	85	2,5	1,5	6,0
	SH 16x130	130	3,5	2,5	8,0
	SH 16x130/330	130	3,5	2,5	8,0
M12 / M16	SH 20x85	85	3,5	2,0	6,0
	SH 20x130 / SH 20x200	130/ 200	3,5	2,5	8,0
Compressive strength $f_b \geq 14$ N/mm²					
M8	SH 12x80	80	1,5	1,2	4,0
	SH 16x85	85	2,5	2,0	6,0
	SH 16x130	130	3,5	2,5	6,5
	SH 16x130/330	130	3,5	2,5	6,5
M10	SH 16x85	85	2,5	2,0	6,0
	SH 16x130	130	3,5	2,5	9,0
	SH 16x130/330	130	3,5	2,5	9,0
M12 / M16	SH 20x85	85	3,5	2,0	6,0
	SH 20x130 / SH 20x200	130/ 200	3,5	2,5	9,0

[1)] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2)] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

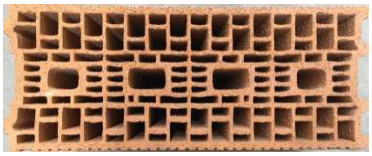
Performance Clay hollow brick HLz-16DF
Characteristic values of resistance under tension and shear load

Annex C 20

Brick type: Clay hollow brick Porotherm Homebric

Table C35: Description

Brick type	Clay hollow brick Porotherm Homebric
Bulk density [kg/dm³]	0,68
Compressive strength [N/mm²]	6, 8 or 10
Code	EN 771-1
Producer (country code)	e.g. Wienerberger (FR)
Brick dimensions [mm]	500 x 200 x 299
Drilling method	Rotary drilling



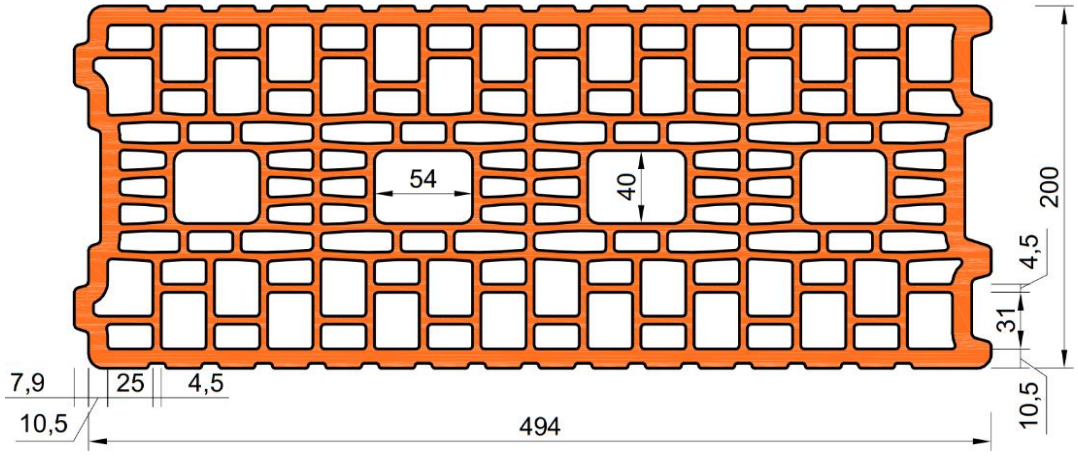


Table C36: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ ||}$	$s_{min\ \perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	500	299	2
M8 / M10	SH 16x85	85				6
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C37: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,65	1,29	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,26	1,89
85		0,52	1,04		1,89	2,84
130		0,45	0,90		1,48	2,23

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 21**
Performance Clay hollow brick Porotherm Homebric Brick description Installation parameters, Displacements	

Brick type: Clay hollow brick Porotherm Homebric

Table C38: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,9	0,75	2,0
	SH 16x85	85	1,2	0,75	2,0
	SH 16x130	130	1,5	0,9	2,5
	SH 16x130/330	130	1,5	0,9	2,5
M10	SH 16x85	85	1,2	0,75	2,0
	SH 16x130	130	1,5	0,9	2,5
	SH 16x130/330	130	1,5	0,9	2,5
M12	SH 20x85	85	1,2	0,75	3,0
	SH 20x130	130	1,5	0,9	3,0
M16	SH 20x85	85	1,2	0,75	3,0
	SH 20x130	130	1,5	0,9	3,0
Compressive strength $f_b \geq 8$ N/mm²					
M8	SH 12x80	80	1,2	0,9	2,5
	SH 16x85	85	1,2	0,9	2,5
	SH 16x130	130	1,5	1,2	3,0
	SH 16x130/330	130	1,5	1,2	3,0
M10	SH 16x85	85	1,2	0,9	2,5
	SH 16x130	130	1,5	1,2	3,0
	SH 16x130/330	130	1,5	1,2	3,0
M12	SH 20x85	85	1,2	0,9	3,5
	SH 20x130	130	1,5	1,2	3,5
M16	SH 20x85	85	1,2	0,9	3,5
	SH 20x130	130	1,5	1,2	3,5
Compressive strength $f_b \geq 10$ N/mm²					
M8	SH 12x80	80	1,2	0,9	3,0
	SH 16x85	85	1,5	0,9	3,0
	SH 16x130	130	2,0	1,2	3,5
	SH 16x130/330	130	2,0	1,2	3,5
M10	SH 16x85	85	1,5	0,9	3,0
	SH 16x130	130	2,0	1,2	3,5
	SH 16x130/330	130	2,0	1,2	3,5
M12	SH 20x85	85	1,5	0,9	4,0
	SH 20x130	130	2,0	1,2	4,0
M16	SH 20x85	85	1,5	0,9	4,0
	SH 20x130	130	2,0	1,2	4,0

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

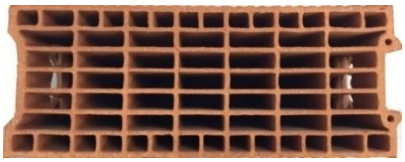
Performance Clay hollow brick Porotherm Homebric
Characteristic values of resistance under tension and shear load

Annex C 22

Brick type: Clay hollow brick BGV Thermo

Table C39: Description

Brick type	Clay hollow brick BGV Thermo
Bulk density [kg/dm³]	0,62
Compressive strength [N/mm²]	4, 6 or 10
Code	EN 771-1
Producer (country code)	e.g. Leroux (FR)
Brick dimensions [mm]	500 x 200 x 314
Drilling method	Rotary drilling



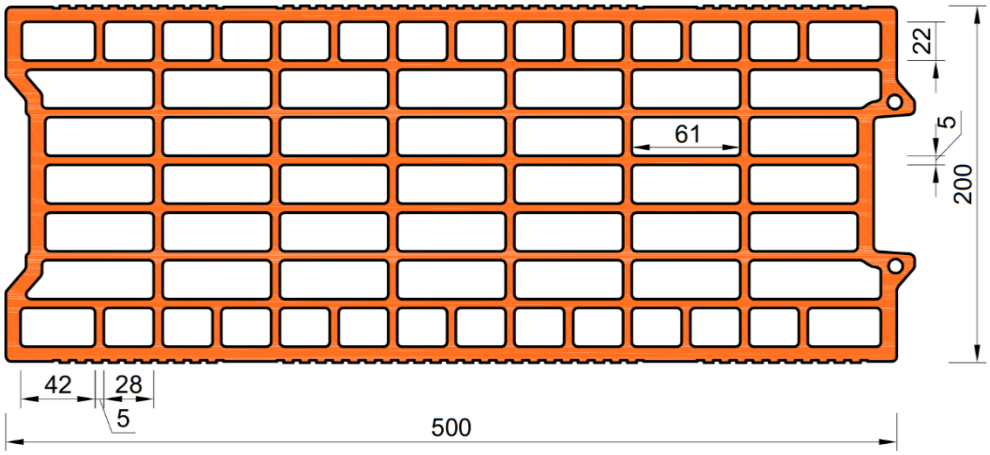


Table C40: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II}$	$s_{min} \perp$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	500	314	2
M8 / M10	SH 16x85	85				4
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C41: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,27	0,54	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,21	1,81
85		0,39	0,77		2,00	3,01
130		0,16	0,32		1,60	2,39

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 23**
Performance Clay hollow brick BGV Thermo Brick description Installation parameters, Displacements	

Brick type: Clay hollow brick BGV Thermo

Table C42: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 4$ N/mm²					
M8	SH 12x80	80	0,5	0,4	2,0
	SH 16x85	85	0,75	0,5	2,0
	SH 16x130	130	0,9	0,75	2,5
	SH 16x130/330	130	0,9	0,75	2,5
M10	SH 16x85	85	0,75	0,5	2,0
	SH 16x130	130	1,2	0,75	2,5
	SH 16x130/330	130	1,2	0,75	2,5
M12	SH 20x85	85	0,75	0,5	2,0
	SH 20x130	130	1,2	0,75	2,5
M16	SH 20x85	85	0,9	0,6	2,0
	SH 20x130	130	1,2	0,75	2,5
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,6	0,5	2,0
	SH 16x85	85	0,9	0,6	2,5
	SH 16x130	130	1,2	0,9	3,0
	SH 16x130/330	130	1,2	0,9	3,0
M10	SH 16x85	85	0,9	0,6	2,5
	SH 16x130	130	1,5	0,9	3,0
	SH 16x130/330	130	1,5	0,9	3,0
M12	SH 20x85	85	0,9	0,6	3,0
	SH 20x130	130	1,5	0,9	3,0
M16	SH 20x85	85	1,2	0,75	3,0
	SH 20x130	130	1,5	0,9	3,0
Compressive strength $f_b \geq 10$ N/mm²					
M8	SH 12x80	80	0,9	0,6	3,0
	SH 16x85	85	1,2	0,9	3,5
	SH 16x130	130	1,5	1,2	4,0
	SH 16x130/330	130	1,5	1,2	4,0
M10	SH 16x85	85	1,2	0,9	3,5
	SH 16x130	130	1,5	1,2	4,0
	SH 16x130/330	130	1,5	1,2	4,0
M12	SH 20x85	85	1,2	0,75	3,5
	SH 20x130	130	1,5	1,2	4,0
M16	SH 20x85	85	1,5	0,9	3,5
	SH 20x130	130	1,5	1,2	4,0

[1)] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2)] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance Clay hollow brick BGV Thermo
Characteristic values of resistance under tension and shear load

Annex C 24

Brick type: Clay hollow brick Calibric Th

Table C43: Description

Brick type	Clay hollow brick Calibric Th
Bulk density [kg/dm³]	0,62
Compressive strength [N/mm²]	6, 9 or 12
Code	EN 771-1
Producer (country code)	e.g. Terreal (FR)
Brick dimensions [mm]	500 x 200 x 314
Drilling method	Rotary drilling

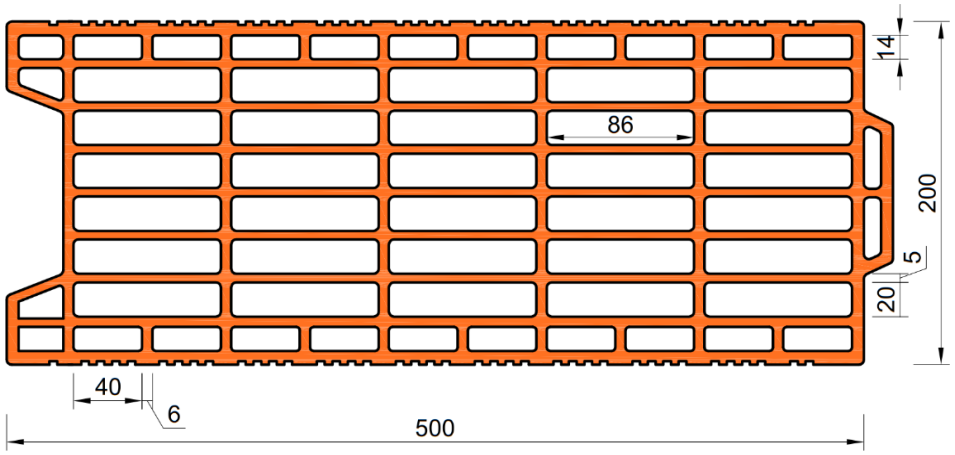


Table C44: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II}$	$s_{min\ \perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	500	314	2
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C45: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,48	0,96	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,18	1,78
85		0,49	0,98		2,20	3,30
130		0,37	0,74		2,31	3,46

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 25**
Performance Clay hollow brick Calibric Th Brick description Installation parameters, Displacements	

Brick type: Clay hollow brick Calibric Th

Table C46: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,75	0,5	2,5
	SH 16x85	85	0,75	0,5	3,5
	SH 16x130	130	0,9	0,6	3,5
	SH 16x130/330	130	0,9	0,6	3,5
M10	SH 16x85	85	0,75	0,5	3,5
	SH 16x130	130	0,9	0,6	3,5
	SH 16x130/330	130	0,9	0,6	3,5
M12	SH 20x85	85	0,75	0,5	6,0
	SH 20x130	130	0,9	0,6	6,0
M16	SH 20x85	85	1,2	0,75	6,0
	SH 20x130	130	1,2	0,75	6,0
Compressive strength $f_b \geq 9$ N/mm²					
M8	SH 12x80	80	0,9	0,6	3,5
	SH 16x85	85	0,9	0,6	4,5
	SH 16x130	130	1,2	0,75	4,5
	SH 16x130/330	130	1,2	0,75	4,5
M10	SH 16x85	85	0,9	0,6	4,5
	SH 16x130	130	1,2	0,9	4,5
	SH 16x130/330	130	1,2	0,9	4,5
M12	SH 20x85	85	0,9	0,6	7,5
	SH 20x130	130	1,2	0,9	7,5
M16	SH 20x85	85	1,5	0,9	7,5
	SH 20x130	130	1,5	0,9	7,5
Compressive strength $f_b \geq 12$ N/mm²					
M8	SH 12x80	80	0,9	0,75	4,0
	SH 16x85	85	0,9	0,75	5,5
	SH 16x130	130	1,2	0,9	5,5
	SH 16x130/330	130	1,2	0,9	5,5
M10	SH 16x85	85	0,9	0,75	5,5
	SH 16x130	130	1,5	0,9	5,5
	SH 16x130/330	130	1,5	0,9	5,5
M12	SH 20x85	85	0,9	0,75	8,5
	SH 20x130	130	1,5	0,9	8,5
M16	SH 20x85	85	1,5	1,2	8,5
	SH 20x130	130	1,5	1,2	8,5

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance Clay hollow brick Calibric Th
Characteristic values of resistance under tension and shear load

Annex C 26

Brick type: Clay hollow brick Urbanbric

Table C47: Description

Brick type	Clay hollow brick Urbanbric
Bulk density [kg/dm³]	0,74
Compressive strength [N/mm²]	6 or 9
Code	EN 771-1
Producer (country code)	e.g. Imerys (FR)
Brick dimensions [mm]	560 x 200 x 274
Drilling method	Rotary drilling

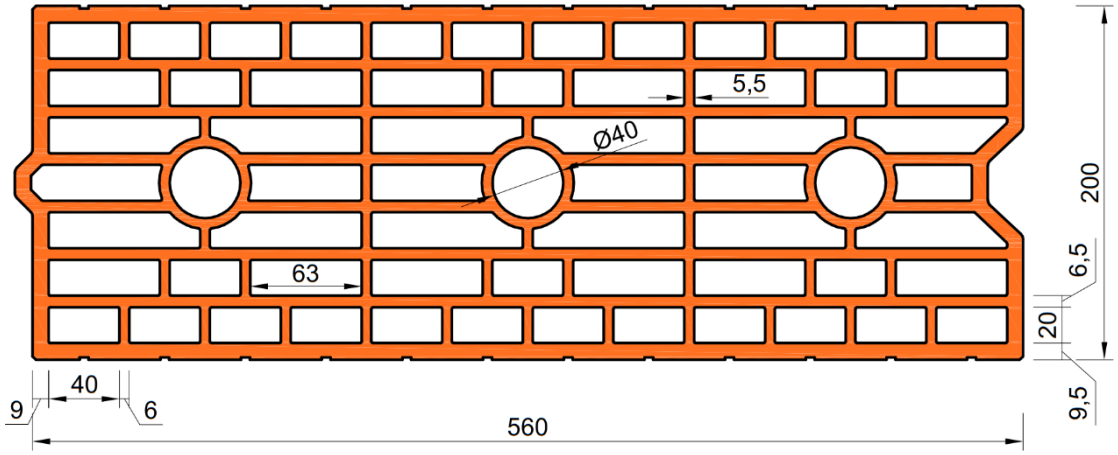


Table C48: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II}$	$s_{min\ \perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	560	274	2
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C49: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,34	0,67	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,71	1,06
85		0,52	1,04		1,37	2,06
130		0,62	1,24		1,62	2,44

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 27**
Performance Clay hollow brick Urbanbric Brick description Installation parameters, Displacements	

Brick type: Clay hollow brick Urbanbric

Table C50: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,9	0,75	3,0
M8 / M10	SH 16x85	85	1,2	0,75	3,5
	SH 16x130	130	1,5	1,2	3,5
	SH 16x130/330	130	1,5	1,2	3,5
M12 / M16	SH 20x85	85	1,2	0,75	4,0
	SH 20x130	130	1,5	1,2	4,0
Compressive strength $f_b \geq 9$ N/mm²					
M8	SH 12x80	80	1,2	0,9	3,5
M8 / M10	SH 16x85	85	1,5	0,9	4,0
	SH 16x130	130	2,0	1,5	4,5
	SH 16x130/330	130	2,0	1,5	4,5
M12 / M16	SH 20x85	85	1,5	0,9	5,0
	SH 20x130	130	2,0	1,5	5,0

1) For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

2) For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance Clay hollow brick Urbanbric
Characteristic values of resistance under tension and shear load

Annex C 28

Brick type: Clay hollow brick Blocchi Leggeri

Table C51: Description

Brick type	Clay hollow brick Blocchi Leggeri
Bulk density [kg/dm³]	0,55
Compressive strength [N/mm²]	4, 6 or 8
Code	EN 771-1
Producer (country code)	e.g. Wienerberger (IT)
Brick dimensions [mm]	250 x 120 x 250
Drilling method	Rotary drilling

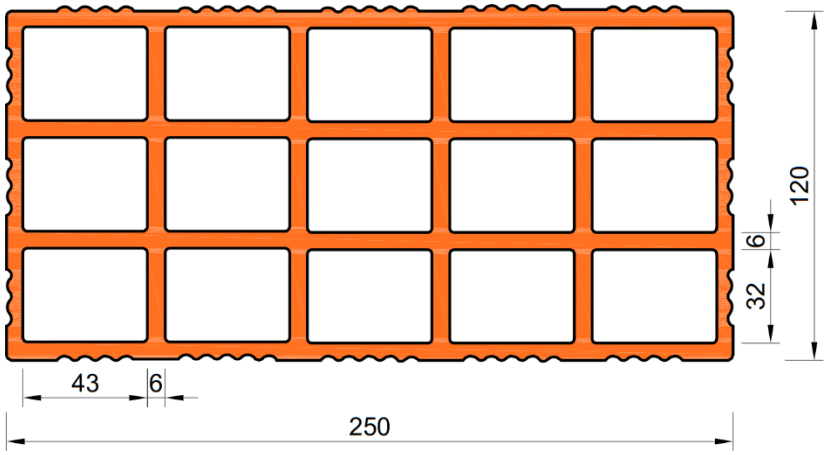


Table C52: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ II}$	$s_{min} \perp$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	250	250	4
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				
	SH 20x200	200				

Table C53: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,32	0,64	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,16	1,74
85		0,26	0,53		2,52	3,78
130 ; 200		0,32	0,64		2,52	3,78

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 29**
Performance Clay hollow brick Blocchi Leggeri Brick description Installation parameters, Displacements	

Brick type: Clay hollow brick Blocchi Leggeri

Table C54: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 4$ N/mm²					
M8	SH 12x80	80	0,4	0,3	2,0
M8 / M10	SH 16x85	85	0,4	0,3	2,0
	SH 16x130	130	0,5	0,3	2,0
	SH 16x130/330	130	0,5	0,3	2,0
M12 / M16	SH 20x85	85	0,4	0,3	2,0
	SH 20x130	130	0,5	0,3	2,0
	SH 20x200	200	0,5	0,3	2,0
Compressive strength $f_b \geq 6$ N/mm²					
M8	SH 12x80	80	0,5	0,3	2,0
M8 / M10	SH 16x85	85	0,5	0,3	2,0
	SH 16x130	130	0,6	0,4	2,0
	SH 16x130/330	130	0,6	0,4	2,0
M12 / M16	SH 20x85	85	0,5	0,3	2,5
	SH 20x130	130	0,6	0,4	2,5
	SH 20x200	200	0,6	0,4	2,5
Compressive strength $f_b \geq 8$ N/mm²					
M8	SH 12x80	80	0,6	0,4	2,5
M8 / M10	SH 16x85	85	0,6	0,4	2,5
	SH 16x130	130	0,6	0,5	2,5
	SH 16x130/330	130	0,6	0,5	2,5
M12 / M16	SH 20x85	85	0,6	0,4	3,0
	SH 20x130	130	0,6	0,5	3,0
	SH 20x200	200	0,6	0,5	3,0

1) For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

2) For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

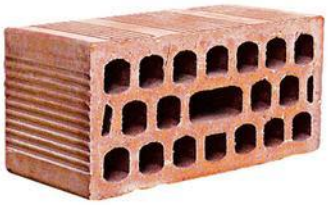
Performance Clay hollow brick Blocchi Leggeri
Characteristic values of resistance under tension and shear load

Annex C 30

Brick type: Clay hollow brick Doppio Uni

Table C55: Description

Brick type	Clay hollow brick Doppio Uni
Bulk density [kg/dm³]	0,92
Compressive strength [N/mm²]	10, 16, 20 or 28
Code	EN 771-1
Producer (country code)	e.g. Wienerberger (IT)
Brick dimensions [mm]	250 x 120 x 120
Drilling method	Rotary drilling



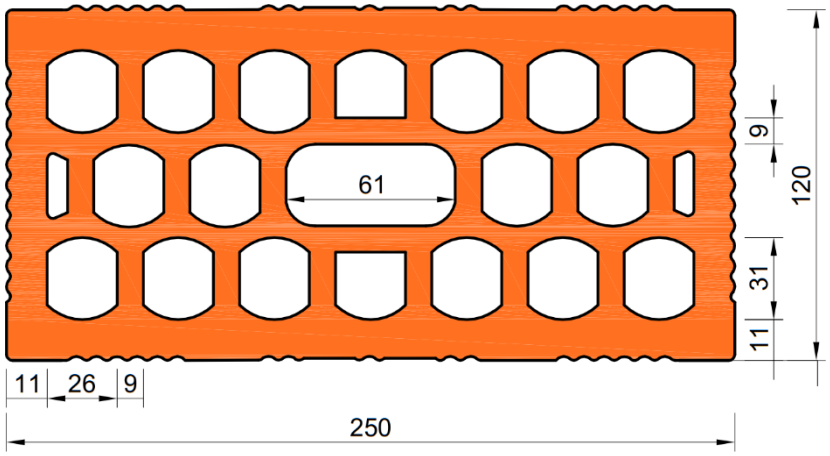


Table C56: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ ||}$	$s_{min\ \perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	250	120	4
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				
	SH 20x200	200				

Table C57: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,54	1,08	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	1,63	2,45
85		0,17	0,34		1,75	2,63
130 ; 200		0,54	1,08		1,75	2,63

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 31**
Performance Clay hollow brick Doppio Uni Brick description Installation parameters, Displacements	

Brick type: Clay hollow brick Doppio Uni

Table C58: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1]	N_{Rk} [1]	$V_{Rk,b}$ [2]
		[mm]	[kN]		
Compressive strength $f_b \geq 10$ N/mm²					
M8	SH 12x80	80	0,9	0,6	2,0
M8 / M10	SH 16x85	85	0,9	0,6	2,0
	SH 16x130	130	0,9	0,6	2,0
	SH 16x130/330	130	0,9	0,6	2,0
M12 / M16	SH 20x85	85	1,2	0,75	2,0
	SH 20x130	130	1,2	0,75	2,0
	SH 20x200	200	1,2	0,75	2,0
Compressive strength $f_b \geq 16$ N/mm²					
M8	SH 12x80	80	0,9	0,75	2,5
M8 / M10	SH 16x85	85	1,2	0,9	2,5
	SH 16x130	130	1,2	0,9	2,5
	SH 16x130/330	130	1,2	0,9	2,5
M12 / M16	SH 20x85	85	1,5	0,9	2,5
	SH 20x130	130	1,5	0,9	2,5
	SH 20x200	200	1,5	0,9	2,5
Compressive strength $f_b \geq 20$ N/mm²					
M8	SH 12x80	80	1,2	0,75	3,0
M8 / M10	SH 16x85	85	1,2	0,9	3,0
	SH 16x130	130	1,5	0,9	3,0
	SH 16x130/330	130	1,5	0,9	3,0
M12 / M16	SH 20x85	85	1,5	0,9	3,0
	SH 20x130	130	1,5	0,9	3,0
	SH 20x200	200	1,5	0,9	3,0
Compressive strength $f_b \geq 28$ N/mm²					
M8	SH 12x80	80	1,5	0,9	3,5
M8 / M10	SH 16x85	85	1,5	1,2	3,5
	SH 16x130	130	1,5	1,2	3,5
	SH 16x130/330	130	1,5	1,2	3,5
M12 / M16	SH 20x85	85	2,0	1,2	3,5
	SH 20x130	130	2,0	1,2	3,5
	SH 20x200	200	2,0	1,2	3,5

[1] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

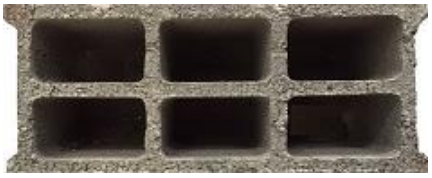
Performance Clay hollow brick Doppio Uni
Characteristic values of resistance under tension and shear load

Annex C 32

Brick type: Hollow Light weight concrete Bloc creux B40

Table C59: Description

Brick type	Hollow light weight concrete Bloc creux B40
Bulk density [kg/dm³]	0,8
Compressive strength [N/mm²]	4
Code	EN 771-3
Producer (country code)	e.g. Sepa (FR)
Brick dimensions [mm]	494 x 200 x 190
Drilling method	Rotary drilling



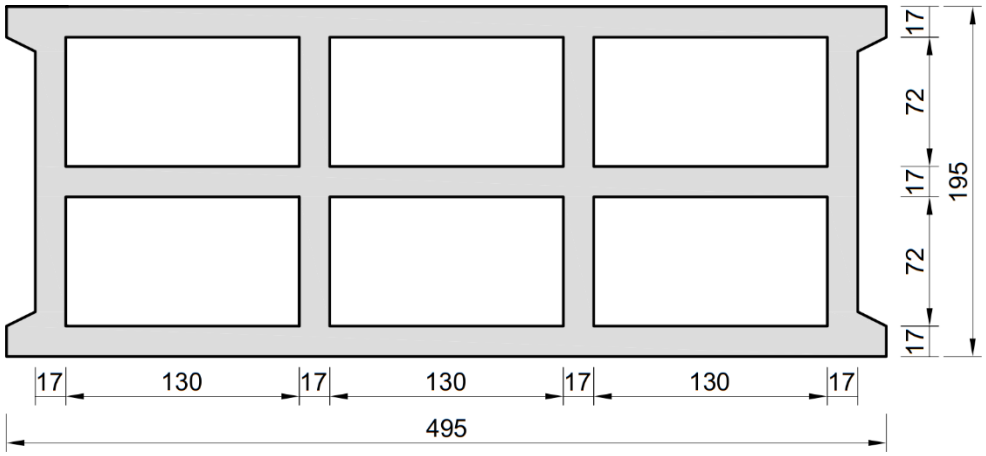


Table C60: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ ||}$	$s_{min\ \perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	100	494	190	2
M8 / M10	SH 16x85	85				
	SH 16x130	130				
	SH 16x130/330	130				
M12 / M16	SH 20x85	85	120			
	SH 20x130	130				

Table C61: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,14	0,29	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,25	0,37
85		0,45	0,90		0,98	1,47
130		0,61	1,22		1,10	1,65

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 33**
Performance hollow light weight concrete Bloc creux B40 Brick description Installation parameters, Displacements	

Brick type: Hollow Light weight concrete Bloc creux B40

Table C62: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 4$ N/mm²					
M8	SH 12x80	80	0,4	0,3	1,2
	SH 16x85	85	0,6	0,5	3,0
	SH 16x130	130	2,0	1,5	3,5
	SH 16x130/330	130	2,0	1,5	3,5
M10	SH 16x85	85	0,6	0,5	3,0
	SH 16x130	130	2,0	1,5	3,5
	SH 16x130/330	130	2,0	1,5	3,5
M12	SH 20x85	85	0,9	0,6	3,0
	SH 20x130	130	2,0	1,5	3,5
M16	SH 20x85	85	0,9	0,6	3,0
	SH 20x130	130	2,0	1,5	3,5

[1)] For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

[2)] For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance hollow light weight concrete Bloc creux B40
Characteristic values of resistance under tension and shear load

Annex C 34

Brick type: Solid light weight concrete brick

Table C63: Description

Brick type	Solid light weight concrete brick	
Bulk density [kg/dm³]	0,63	
Compressive strength [N/mm²]	2	
Code	EN 771-3	
Producer (country code)	e.g. Bisotherm (DE)	
Brick dimensions [mm]	300 x 123 x 248	
Drilling method	Rotary drilling	

Table C64: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	**Edge distance**	**Spacing**	**Maximum installation torque**
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
		[mm]			[Nm]
M8	**-**	80	120	240	6
M10	**-**	90	135	270	
M12	**-**	100	150	300	10
M16	**-**	100	150	300	14

Table C65: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1{,}4 \bullet \gamma_M}$	0,64	1,28	$\frac{V_{Rk}}{1{,}4 \bullet \gamma_M}$	0,50	0,75
90		0,70	1,41		0,68	1,03
100		0,21	0,42		0,54	0,81

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 35**
Performance Solid light weight concrete LAC Brick description Installation parameters, Displacements	

Brick type: Solid light weight concrete brick

Table C66: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 2$ N/mm²					
M8	**-**	80	2,0	1,5	3,0
M10	**-**	90	2,0	1,5	3,5
M12	**-**	100	2,0	1,5	4,0
M16	**-**	100	2,0	1,5	4,0

1) For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054
2) For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

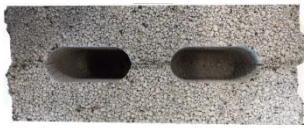
Performance Solid light weight concrete LAC
Characteristic values of resistance under tension and shear load

Annex C 36

Brick type: Hollow light weight concrete brick – Leca Lex harkko RUH-200

Table C67: Description

Brick type	Hollow light weight concrete Leca Lex harkko RUH-200
Bulk density [kg/dm³]	0,7
Compressive strength [N/mm²]	2,7
Code	EN 771-3
Producer (country code)	e.g. Saint-Gobain Weber (Fin)
Brick dimensions [mm]	498 x 200 x 195
Drilling method	Rotary drilling



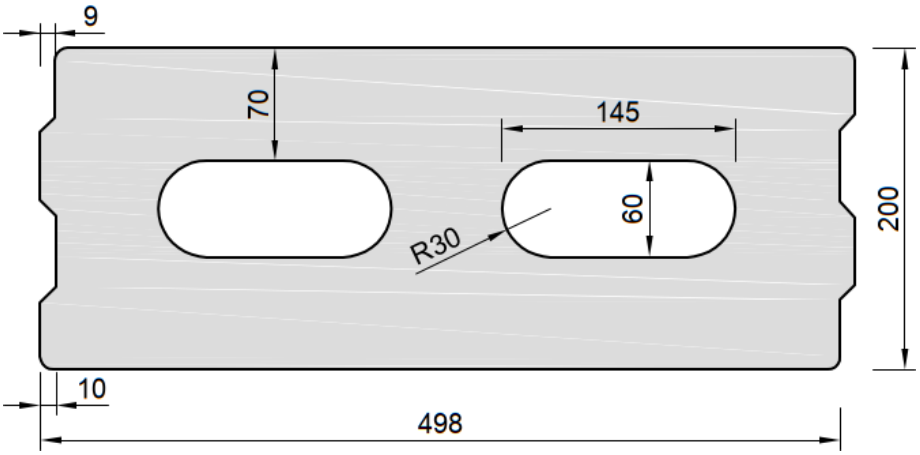


Table C68: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	Edge distance	Spacing		Maximum installation torque
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\ ||}$	$s_{min\ \perp}$	max T_{inst}
		[mm]				[Nm]
M8	SH 12x80	80	120	498	195	8
M8 / M10	SH 16x85	85	127			
	SH 16x130	130	195			
	SH 16x130/330	130	195			
M12 / M16	SH 20x85	85	127			
	SH 20x130	130	195			

Table C69: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1,4 \bullet \gamma_M}$	0,11	0,22	$\frac{V_{Rk}}{1,4 \bullet \gamma_M}$	0,47	0,70
85		0,11	0,23		0,38	0,57
130		0,10	0,20		0,56	0,85

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 37**
Performance LECA LEX harkko RUH-200 Hollow Brick description Installation parameters, Displacements	

Brick type: Hollow light weight concrete brick – Leca Lex harkko RUH-200

Table C70: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 2,7$ N/mm²					
M8	SH 12x80	80	2,0	1,2	2,5
	SH 16x85	85	2,0	1,2	3,5
	SH 16x130	130	2,5	1,5	3,5
	SH 16x130/330	130	2,5	1,5	3,5
M10	SH 16x85	85	2,0	1,5	3,5
	SH 16x130	130	2,5	1,5	3,5
	SH 16x130/330	130	2,5	1,5	3,5
M12	SH 20x85	85	2,5	1,5	3,5
	SH 20x130	130	2,5	1,5	3,5
M16	SH 20x85	85	2,5	1,5	3,5
	SH 20x130	130	2,5	1,5	3,5

1) For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

2) For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 38**
Performance LECA LEX harkko RUH-200 Hollow Characteristic values of resistance under tension and shear load Displacement	

Brick type: Solid light weight concrete brick – Leca Lex harkko RUH-200 kulma

Table C71: Description

Brick type	Solid light weight concrete Leca Lex harkko RUH-200 kulma
Bulk density [kg/dm³]	0,78
Compressive strength [N/mm²]	3
Code	EN 771-3
Producer (country code)	e.g. Saint-Gobain Weber (Fin)
Brick dimensions [mm]	498 x 200 x 195
Drilling method	Rotary drilling

Table C72: Installation parameter (Edge and spacing distances)

Anchor size	Sleeve	Embedment depth	**Edge distance**	**Spacing**	**Maximum installation torque**
		h_{ef}	$c_{min} = c_{cr}$	$s_{cr} = s_{min\,\parallel} = s_{min\,\perp}$	max T_{inst}
		[mm]			[Nm]
M8	**-**	80	120	240	6
M10	**-**	90	135	270	12
M12	**-**	100	150	300	14
M16	**-**	100	150	300	16
M8	SH 12x80	80	120	240	8
M8 / M10	SH 16x85	85	127	255	
	SH 16x130	130	195	390	16
	SH 16x130/330	130	195	390	16
M12 / M16	SH 20x85	85	127	255	12
	SH 20x130	130	195	390	16

Table C73: Displacement

h_{ef}	N	δ_{N0}	$\delta_{N\infty}$	V	δ_{V0}	$\delta_{V\infty}$
[mm]	[kN]	[mm]	[mm]	[kN]	[mm]	[mm]
80	$\frac{N_{Rk}}{1{,}4 \bullet \gamma_M}$	0,09	0,18	$\frac{V_{Rk}}{1{,}4 \bullet \gamma_M}$	0,48	0,72
85		0,07	0,15		0,77	1,15
90		0,13	0,26		0,26	0,39
100		0,13	0,23		0,36	0,54
130		0,10	0,21		0,68	1,01

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry	**Annex C 39**
Performance LECA LEX harkko RUH-200 Kulma Solid Brick description Installation parameters, Displacements	

Brick type: Solid light weight concrete brick – Leca Lex harkko RUH-200 kulma

Table C74: Characteristic values of resistance under tension and shear loads

Anchor size	Sleeve	Effective anchorage depth	Characteristic resistance		
			Use category d/d w/d w/w		
			40°C / 24°C	80°C / 50°C	For all temperature range
		h_{ef}	N_{Rk} [1)]	N_{Rk} [1)]	$V_{Rk,b}$ [2)]
		[mm]	[kN]		
Compressive strength $f_b \geq 3{,}0$ N/mm²					
M8	**-**	80	2,0	1,2	3,0
M10	**-**	90	3,0	2,0	4,0
M12	**-**	100	3,0	2,0	4,0
M16	**-**	100	3,0	2,0	4,0
M8	SH 12x80	80	2,0	1,2	3,0
	SH 16x85	85	2,0	1,5	3,5
	SH 16x130	130	3,0	2,0	4,0
	SH 16x130/330	130	3,0	2,0	4,0
M10	SH 16x85	85	2,0	1,5	3,5
	SH 16x130	130	3,0	2,0	4,0
	SH 16x130/330	130	3,0	2,0	4,0
M12 / M16	SH 20x85	85	2,0	1,5	4,5
	SH 20x130	130	3,0	2,0	4,5

1) For design according TR 054: $N_{Rk} = N_{Rk,p} = N_{Rk,b}$; $N_{Rk,s}$ according to Table C2 Annex C2; Calculation $N_{Rk,pb}$ see TR 054

2) For $V_{Rk,s}$ see Annex C 2, Table C2; Calculation of $V_{Rk,pb}$ and $V_{Rk,c}$ see TR 054

Würth Injection system WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical for masonry

Performance LECA LEX harkko RUH-200 Kulma Solid
Characteristic values of resistance under tension and shear load

Annex C 40

ДЕКЛАРАЦИЯ ЗА ЕКСПЛОАТАЦИОННИ ПОКАЗАТЕЛИ

№ LE_5918240330_03_M_WIT-PM 200(2)

Настоящият текст е превод от немски на български.
В случай на съмнение важи оригиналът на немски.

1. Уникален идентификационен код на типа на продукта: Würth Injektionssystem WIT-PM 200, WIT-PM 200 express, (Würth инжекционна система WIT-PM 200, WIT-PM 200 express), WIT-PM 200 tropical
Арт. №: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Предвидена употреба/употреби: Инжекционна система за закотвяне в зидария
3. Производител: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Система (и) за оценка и проверка на постоянството на експлоатационните показатели: Система 1
5. Европейски документ за оценяване: EAD 330076-01-0604
Европейска техническа оценка: ETA-13/0037 16 декември 2022 г.
Орган за техническа оценка: Technical and Test Institute for Construction Prague (TZUS)
Нотифициран(и) орган(и): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Деклариран(и) експлоатационен(и) показател(и):

Основни характеристики	**Експлоатационни показатели**	**Хармонизирана техническа спецификация**
Механична якост и устойчивост (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Характерни стойности за съпротивление	Приложение C6 – C40	
Изместванията	Приложение C5 – C39	
Устойчивост	Приложение B1	
Противопожарна защита (BWR 2)		
Реакция на огън	Дюбелите изпълняват изискванията за клас A1	
Хигиена, здравеопазване и опазване на околната среда (BWR 3)		
Съдържание, емисия и/или освобождаване на опасни вещества	Експлоатационният показател не е оценяван	

Експлоатационните показатели на продукта, посочен по-горе, са в съответствие с декларираните експлоатационни показатели. Отговорност за издаването на декларацията за експлоатационни показатели носи изцяло производителят в съответствие с Регламент на (ЕС) № 305/2011.

Подписана за производителя и от името на производителя от:

В оригинал подписана от:

Франк Волперт
Прокурист – Ръководител отдел продукт, дивизия, маркетинг)

В оригинал подписана от:

Д-р. инж. Зигфрид Байхтер
(Прокурист- мениджър Безопасност на продуктите)

Кюнцелзау, 16.12.2022 г.

PROHLÁŠENÍ O VLASTNOSTECH

Č. LE_5918240330_03_M_WIT-PM 200(2)

Jedná se o verzi přeloženou z němčiny.
V případě pochybností platí německý originál.

1. Jednoznačný identifikační kód typu výrobku: Injekční systém Würth WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Č. výr.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Zamýšlené/zamýšlená použití: Injekční systém pro ukotvení do zdiva
3. Výrobce: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Systém(y) pro hodnocení a kontrolu stálosti vlastností: Systém 1
5. Evropský dokument pro posuzování: EAD 330076-01-0604
Evropské technické posouzení: ETA-13/0037 z 16. prosince 2022
Subjekt pro technické posuzování: Technical and Test Institute for Construction Prague (TZUS)
Oznámený subjekt/oznámené subjekty: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Deklarovaná vlastnost/Deklarované vlastnosti:

Podstatné charakteristické vlastnosti	**Výkon**	**Harmonizovaná technická specifikace**
Mechanická pevnost a stálost (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Charakteristické hodnoty pro odpor	Příloha C6 – C40	
Posuny	Příloha C5 – C39	
Trvanlivost	Příloha B1	
Požární ochrana (BWR 2)		
Reakce na oheň	Hmoždinky splňují požadavky pro třídu A1	
Hygiena, zdraví a ochrana životního prostředí (BWR 3)		
Obsah, emise a/nebo uvolňování nebezpečných látek	Vlastnost není hodnocená	

Vlastnosti výše uvedeného výrobku jsou ve shodě se souborem deklarovaných vlastností. Toto prohlášení o vlastnostech se v souladu s nařízením (EU) č. 305/2011 vydává na výhradní odpovědnost výrobce uvedeného výše.

Podepsal za výrobce a jeho jménem:

V originále podepsal:

Frank Wolpert
(zmocněnec – vedoucí oddělení produkt, divize, marketing)

V originále podepsal:

Dr.–Ing. Siegfried Beichter
(zmocněnec – vedoucí oddělení bezpečnosti výrobků)

Künzelsau, 16. prosince 2022

YDEEVNEDEKLARATION

Nr. LE_5918240330_03_M_WIT-PM 200(2)

Denne version er oversat fra tysk.
I tvivlstilfælde gælder den tyske original.

1. Produkttypens entydige identifikationskode: Würth injektionssystem WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Art.-nr.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Anvendelsesformål: Injektionssystem til forankring i murværk
3. Producent: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. System(er) til bedømmelse og kontrol af ydeevnebestandigheden: System 1
5. Europæisk vurderingsdokument: EAD 330076-01-0604
Europæisk teknisk bedømmelse: ETA-13/0037 af 16-12-2022
Teknisk evalueringsmyndighed: Technical and Test Institute for Construction Prague (TZUS)
Notificeret myndighed/notificerede myndigheder: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt

6. Deklareret ydeevne/deklarerede ydeevner:

Væsentlige egenskaber	**Ydelse**	**Harmoniseret teknisk specifikation**
Mekanisk modstandsdygtighed og stabilitet (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Karakteristiske værdier for modstand	Appendiks C6 – C40	
Forskydninger	Appendiks C5 – C39	
Holdbarhed	Appendiks B1	
Brandsikkerhed (BWR 2)		
Brandreaktion	Dyvlerne opfylder kravene til klasse A1	
Hygiejne, sundhed og miljøbeskyttelse (BWR 3)		
Indhold, emission og/eller frigørelse af farlige stoffer	Ydelse ikke evalueret	

Det ovenstående produkts ydeevne svarer til den deklarerede ydeevne/de deklarerede ydeevner. Ovenstående producent er eneansvarlig for udstedelsen af ydeevnedeklarationen i henhold til forordning (EU) nr. 305/2011.

Underskrevet for og på vegne af producenten af:

Originalen underskrevet af:

Frank Wolpert
(Prokurist – områdeleder produktmanagement, afdelinger, marketing)

Originalen underskrevet af:

Dr.-ing. Siegfried Beichter
(Prokurist – leder produktsikkerhed)

Künzelsau, den 16.12.2022

LEISTUNGSERKLÄRUNG

Nr. LE_5918240330_03_M_WIT-PM 200(1)

1. Eindeutiger Kenncode des Produkttyps: Würth Injektionssystem WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   Art.-Nr.: 591824*;
   090546*; 090547*; 59151*; 59152*; 59153*; 59154*; 59160*; 5916108999; 5916110999; 5916112999; 5916116999; 5916120999; 5916124999; 5916208999; 5916210999; 5916212999; 5916216999; 5916408110; 5916410130; 5916412160; 5916416190
2. Verwendungszweck(e): Injektionssystem zur Verankerung im ungerissenen Beton
3. Hersteller: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. System(e) zur Bewertung und Überprüfung der Leistungsbeständigkeit: System 1
5. Europäisches Bewertungsdokument: EAD 330499-01-0601
   Europäische Technische Bewertung: ETA-12/0569 vom 07.12.2022
   Technische Bewertungsstelle: Technical and Test Institute for Construction Prague (TZUS)
   Notifizierte Stelle(n): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Erklärte Leistung(en):

Wesentliche Merkmale	**Leistung**	**Harmonisierte technische Spezifikation**
Mechanische Festigkeit und Standsicherheit (BWR 1)		ETA-12/0569 EAD 330499-01-0601
Charakteristischer Widerstand unter Zugbeanspruchung (statische und quasi-statische Einwirkungen)	Anhang C1, C2, C3	
Charakteristischer Widerstand unter Querbeanspruchung (statische und quasi-statische Einwirkungen)	Anhang C1, C4	
Verschiebungen für Kurzzeit- und Langzeitbeanspruchung	Anhang C5	
Dauerhaftigkeit	Anhang B1	
Charakteristischer Widerstand und Verschiebungen für seismische Leistungskategorie C1 und C2	NPA	
Hygiene, Gesundheit und Umweltschutz (BWR 3)		
Inhalt, Emission und/oder Freisetzung von gefährlichen Stoffen	Leistung nicht bewertet	

Die Leistung des vorstehenden Produkts entspricht der erklärten Leistung/den erklärten Leistungen. Für die Erstellung der Leistungserklärung im Einklang mit der Verordnung (EU) Nr. 305/2011 ist allein der obengenannte Hersteller verantwortlich.

Unterzeichnet für den Hersteller und im Namen des Herstellers von:

Frank Wolpert
28.09.2023 15:18:46 [UTC+2]
Frank Wolpert
(Prokurist – Bereichsleiter Produkt, Divisionen, Marketing)

Siegfried Beichter
10.10.2023 16:55:28 [UTC+2]
Dr. –Ing. Siegfried Beichter
(Prokurist - Leiter Produktsicherheit)

Künzelsau, den 07.12.2022

DECLARACIÓN DE PRESTACIONES

Nº LE_5918240330_03_M_WIT-PM 200(2)

Esta versión está traducida del alemán.
En caso de duda es aplicable el original alemán.

1. Código de identificación única del producto tipo: Sistema de inyección Würth WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   N° de art.: 591824*;
   090546*; 090547*; 59160*;
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
   090344 204; 090344 205
2. Uso(s) previsto(s): Sistema de inyección para el anclaje en mampostería y muros
3. Fabricante: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. Sistema(s) de evaluación y verificación de la constancia de las prestaciones: Sistema 1
5. Documento de evaluación europeo: EAD 330076-01-0604
   Evaluación Técnica Europea: ETA-13/0037 – del 16 de diciembre de 2022
   Organismo de Evaluación Técnica: Technical and Test Institute for Construction Prague (TZUS, Instituto técnico y de ensayos para la construcción de Praga)
   Organismo(s) notificado(s): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW, Instituto para la construcción de acero y mecánica de materiales), Darmstadt
6. Prestaciones declaradas:

Características esenciales	**Prestación**	**Especificación técnica armonizada**
Resistencia mecánica y estabilidad (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Valores característicos para la resistencia	Anexos C6 – C40	
Desplazamientos	Anexos C5 – C39	
Durabilidad	Anexo B1	
Protección contra incendios (BWR 2)		
Reacción al fuego	Los tacos cumplen los requisitos de la clase A1	
Higiene, salud y protección medioambiental (BWR 3)		
Contenido, emisión y liberación de sustancias peligrosas	Prestación no evaluada	

Las prestaciones del producto identificado anteriormente son conformes con el conjunto de prestaciones declaradas. La presente declaración de prestaciones se emite de conformidad con el Reglamento (UE) n.° 305/2011, bajo la sola responsabilidad del fabricante arriba identificado.

Firmado por y en nombre del fabricante por:

Firmante del original:

Frank Wolpert
(Apoderado - Director de área de producto, divisiones y marketing)

Firmante del original:

Dr. –Ing. Siegfried Beichter
(Apoderado – Director de seguridad del producto)

Künzelsau, el 16/12/2022

TOIMIVUSDEKLARATSIOON

Nr. LE_5918240330_03_M_WIT-PM 200(2)

Tegemist on saksa keelest tõlgitud versiooniga.
Kahtluste korral kehtib saksakeelne originaaltekst.

1. Tootetüübi kordumatu identifitseerimiskood: Würth ankurdusmass WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Art-nr: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Kavandatud kasutusotstarve (-otstarbed): Ankurdusmass kinnitamiseks müüri
3. Tootja: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Toimivuse püsivuse hindamise ja kontrolli süsteem(id): Süsteem 1
5. Euroopa hindamisdokument: EAD 330076-01-0604
Euroopa tehniline hinnang: ETA-13/0037, 16.12.2022
Tehnilise hindamise asutus: Technical and Test Institute for Construction Prague (TZUS)
Teavitatud asutus(ed): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Deklareeritud toimivus(ed):

Põhiomadused	**Toimivus**	**Ühtlustatud tehniline kirjeldus**
Mehaaniline tugevus ja vastupidavus (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Iseloomulikud näitajad vastupanu puhul	Lisa C6–C40	
Nihked	Lisa C5–C39	
Vastupidavus	lisa B1	
Tulekaitse (BWR 2)		
Tuletundlikkus	Tüüblid täidavad klassi A1 nõuded	
Hügieen, tervishoid ja keskkonnakaitse (BWR 3)		
Ohtlike ainete sisaldus, eraldumine ja/või vabanemine	Toimivus hindamata	

Eespool nimetatud toodete toimivus vastab deklareeritud toimivusele / deklareeritud toimivustele. Vastavusdeklaratsiooni koostamise eest kooskõlas määrusega (EL) nr 305/2011 vastutab ainuisikuliselt eespool nimetatud tootja.

Tootja poolt ja nimel allkirjastanud:

Originaali allkirjastanud:

Frank Wolpert
(prokurist – tootejuhtimise, osakonna ja turunduse juht)

Originaali allkirjastanud:

Dr ins Siegfried Beichter
(prokurist – tooteohutuse juht)

Künzelsau, 16.12.2022

SUORITUSTASOILMOITUS

Nro LE_5918240330_03_M_WIT-PM 200(2)

Tämä on käännös saksankielisestä.
Epäilyksissä pätee saksankielinen alkuperäisilmoitus.

1. Tuotetyypin yksilöllinen tunniste: Würth injektiojärjestelmä WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   Tuote-nrot: 591824*; 090546*; 090547*; 59160*; 5916108999; 5916110999; 5916112999; 5916116999; 5916208999; 5916210999; 5916212999; 5916216999; 090344 123; 090344 163; 090344 164; 090344 165; 090344 203; 090344 204; 090344 205
2. Aiottu käyttötarkoitus (aiotut käyttötarkoitukset): Injektiojärjestelmä tiilivuoraukseen ankkuroimiseksi
3. Valmistaja: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12–17
   D – 74653 Künzelsau, Saksa
4. Suoritustason arvioinnin ja tarkistamisen järjestelmä(t): Järjestelmä 1
5. Eurooppalainen arviointidokumentti: EAD 330076-01-0604
   Eurooppalainen tekninen arviointi: ETA-13/0037 16.12.2022
   Teknisestä arvioinnista vastaava laitos: Technical and Test Institute for Construction (TZUS; rakennusalan tekninen- ja testi-instituuti), Praha
   Ilmoitettu laitos / ilmoitetut laitokset: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW; teräsrakenneteollisuuden ja materiaalimekaniikan instituutti), Darmstadt

6. Ilmoitettu suoritustaso/ilmoitetut suoritustasot:

Perusominaisuudet	**Suoritustaso**	**Yhdenmukaistetut tekniset eritelmät**
Mekaaninen lujuus ja vakaus (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Ominaisarvot vastukselle	Liitteet C6 – C40	
Siirtymät	Liiitteet C5–C39	
Kestävyys	Liite B1	
Palosuoja (BWR 2)		
Palokäyttäytyminen	Vaarnat vastaavat luokan A1 vaatimuksia	
Hygienia, terveys ja ympäristönsuojelu (BWR 3)		
Vaarallisten aineiden sisältö, päästöt ja/tai vapautuminen	Suoritustasoa ei arvioitu	

Edellä yksilöidyn tuotteen suoritustaso on ilmoitettujen suoritustasojen joukon mukainen. Tämä suoritustasoilmoitus on asetuksen (EU) N:o 305/2011 mukaisesti annettu edellä ilmoitetun valmistajan yksinomaisella vastuulla.

Valmistajan puolesta allekirjoittanut:

Alkuperäisen asiakirjan allekirjoittanut:

Frank Wolpert
(Prokuristi – tuotehallinnan, alue- ja markkinoinnin osastonjohtaha)

Alkuperäisen asiakirjan allekirjoittanut:

tri –ins. Siegfried Beichter
(Prokuristi – tuoteturvallisuuden johtaja)

Künzelsau, 16.12.2022

DÉCLARATION DES PERFORMANCES

N° LE_5918240330_03_M_WIT-PM 200(2)

Il s'agit ici de la version traduite à partir de l'allemand.
En cas de doute, l'original allemand fait foi.

1. Code d'identification unique du produit type : Système à injecter Würth WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
N° d'art. 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Usage ou usages prévu(s) : Système à injecter pour ancrage dans la maçonnerie
3. Fabricant : Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Système(s) d'évaluation et de vérification de la constance des performances : Système 1
5. Document d'évaluation européen : EAD 330076-01-0604
Évaluation technique européenne : ETA-13/0037 du 16/12/2022
Organisme d'évaluation technique : Technical and Test Institute for Construction Prague (TZUS)
Organisme(s) notifié(s) : 2873, Institut für Stahlbau und Werkstoffmechanik (Institut pour la construction acier et la mécanique des matériaux – IFSW), Darmstadt

6. Performance(s) déclarée(s) :

Caractéristiques essentielles	**Performance**	**Spécification technique harmonisée**
Résistance mécanique et stabilité (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Valeurs caractéristiques pour la résistance	Annexes C6 – C40	
Déplacements	Annexes C5 – C39	
Durabilité	Annexe B1	
Protection incendie (BWR 2)		
Réaction au feu	Les chevilles répondent aux exigences de la classe A1	
Hygiène, santé et environnement (BWR 3)		
Dégagement de substances dangereuses	Performance non évaluée	

La performance du produit susmentionné correspond à la performance / aux performances déclarée(s). Conformément au règlement (UE) n° 305/2011, la présente déclaration des performances est établie sous la seule responsabilité du fabricant mentionné ci-dessus.

Signée pour le fabricant et en son nom par :

Original signé par :

Frank Wolpert
(Fondé de pouvoir – Directeur de domaine Division, Marketing, Gestion produits)

Original signé par :

Dr.-Ing. Siegfried Beichter
(Fondé de pouvoir – Directeur Sécurité des produits)

Künzelsau, le 16/12/2022

DEARBHÚ FEIDHMÍOCHTA

Uimh. LE_5918240330_03_M_WIT-PM 200(2)

Is é seo an leagan a aistríodh ón nGearmáinis.
Má tá aon amhras ort tá feidhm ag an bunleagan Gearmáinise.

1. Cód aitheantais uathúil an chineáil táirge: Córas insteallta Würth WIT - PM 200, WIT - PM 200 express, WIT - PM 200 trópaiceach
   Uimh. Earra: 591824*;
   090546*; 090547*; 59160*;
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
   090344 204; 090344 205
2. Úsáid(í) b(h)eartaithe: Córas insteallta le haghaidh ancaire i mballaí bríce
3. Monaróir: Adolf Würth GmbH & Co KG
   Reinhold- Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. Córa(i)s chun seasmhacht feidhmíochta a mheas agus a scrúdú: Córas 1
5. Doiciméad Measúnaithe Eorpach: EAD 330076-01-0604
   Measúnú Teicniúil Eorpach: ETA-13/0037 den 16.12.2022
   Ionad Measúnaithe Teicniúil: Technical and Test Institute for Construction Prág (TZUS)
   Iona(i)d dá dtugtar fógra: 2873, An Institiúid um Fhoirgníocht Chruaiche agus Meicnic Ábhar (IFSW), Darmstadt
6. Feidhmíocht(aí) d(h)earbhaithe:

Príomhthréithe	**Feidhmíocht**	**Sonraíocht theicniúil chomhchuibhithe**
Friotaíocht agus Cobhsaíocht Mheicniúil (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Luachanna saintréitheacha friotaíochta	Iarscríbhinn C6 - C40	
Aistrithe	Iarscríbhinn C5 - C39	
Marthanacht	Iarscríbhinn B1	
Cosaint dóiteáin (BWR 2)		
Iompar i gcás dóiteáin	Comhlíonann na hancairí riachtanais aicme A1	
Sláintíocht, Sláinte agus Cosaint Comhshaoil (BWR 3)		
Ábhar, astú agus/nó scaoileadh substaintí guaiseacha	Níor measadh an fheidhmíocht	

Tá feidhmíocht an táirge thuas ag teacht leis an bhfeidhmíocht dhearbhaithe/na feidhmíochtaí dearbhaithe. Is ar an déantúsóir thuasluaite amháin atá an fhreagracht Dearbhú Feidhmíochta a dhéanamh de réir Rialacháin (AE) Uimh. 305/2011.

Arna shíniú ar son an déantúsóra agus thar a cheann ag:

Leagan bunaidh sínithe ag:

Frank Wolpert
(Oifigeach údaraithe - Ceann Rannóg, Táirgí, Ranna, Margaíocht)

Leagan bunaidh sínithe ag:

Dr.-Ing. Siegfried Beichter
(Oifigeach údaraithe - Ceann Sábháilteachta Táirgí)

Künzelsau, 16/12/2022

ΔΗΛΩΣΗ ΕΠΙΔΟΣΕΩΝ

Αρ. LE_5918240330_03_M_WIT-PM 200(2)

Το παρόν είναι μετάφραση από τη γερμανική έκδοση.
Σε περίπτωση ενδοιασμών, ισχύει το γερμανικό πρωτότυπο.

1. Μοναδικός κωδικός ταυτοποίησης του προϊόντος: Σύστημα έγχυσης Würth WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   Αρ. τεμ.: 591824*,
   090546*, 090547*, 59160*,
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123, 090344 163, 090344 164, 090344 165, 090344 203, 090344 204, 090344 205
2. Προτεινόμενη(-ες) χρήση(-εις): Σύστημα έγχυσης για αγκύρωση σε τοιχοποιία
3. Κατασκευαστής: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. Σύστημα(τα) αξιολόγησης και επαλήθευσης της σταθερότητας της απόδοσης: Σύστημα 1
5. Ευρωπαϊκό έντυπο αξιολόγησης: EAD 330076- 01-0604
   Ευρωπαϊκή Τεχνική Αξιολόγηση: ETA-13/0037 από 16.12.2022
   Τεχνική υπηρεσία αξιολόγησης: Technical and Test Institute for Construction Prague (TZUS)
   Κοινοποιημένος (-οι) οργανισμός (-οί): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Δηλωμένη (-ες) επίδοση (-εις):

Ουσιώδη χαρακτηριστικά	**Απόδοση**	**Εναρμονισμένη τεχνική προδιαγραφή**
Μηχανική αντοχή και ευστάθεια (BWR 1)		ETA-13/0037 EAD 330076- 01-0604
Χαρακτηριστικές τιμές για αντίσταση	Παράρτημα C6 – C40	
Μετατοπίσεις	Παράρτημα C5 – C39	
Αντίσταση	Παράρτημα B1	
Πυροπροστασία (BWR 2)		
Συμπεριφορά πυρκαγιάς	Τα αγκύρια ικανοποιούν τις απαιτήσεις για την κατηγορία A1	
Υγιεινή, υγεία και περιβαλλοντική προστασία (BWR 3)		
Περιεχόμενο, εκπομπή και/ή απελευθέρωση επικίνδυνων ουσιών	Μη αξιολογημένη απόδοση	

Η απόδοση του παρόντος προϊόντος ανταποκρίνεται στη δηλωθείσα απόδοση/δηλωθείσες αποδόσεις. Για τη σύνταξη της δήλωσης επιδόσεων σε συμμόρφωση με τον κανονισμό (ΕΕ) αρ. 305/2011 ο μόνος υπεύθυνος είναι ο προαναφερόμενος κατασκευαστής.

Υπογράφεται για τον κατασκευαστή και στο όνομα του κατασκευαστή από:

Στο πρωτότυπο υπογράφεται από:

Frank Wolpert
(Γενικός εμπορικός πληρεξούσιος – Διευθυντής τμήματος προϊόντων, τομέων και μάρκετινγκ)

Στο πρωτότυπο υπογράφεται από:

Dr. –Ing. Siegfried Beichter
(Γενικός εμπορικός πληρεξούσιος - Διευθυντής ασφάλειας προϊόντων)

Künzelsau, 16/12/2022

IZJAVA O SVOJSTVIMA

Br. LE_5918240330_03_M_WIT-PM 200(2)

Ova je verzija teksta prevedena s njemačkog.
U slučaju sumnje vrijedi njemački original.

1. Jedinstvena identifikacijska oznaka tipa proizvoda: Würth injekcijski sustav WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   Br. art.: 591824*;
   090546*; 090547*; 59160*;
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
   090344 204; 090344 205
2. Namjena(e): Injekcijski sustav za pričvršćivanje u zidove
3. Proizvođač: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12 – 17
   D – 74653 Künzelsau
4. Sustav/i za ocjenjivanje i provjeru stalnosti svojstava: Sustav 1
5. Europski dokument za ocjenjivanje: EAD 330076-01-0604
   Europska tehnička ocjena: ETA-13/0037 od 16. prosinca 2022.
   Tijelo za tehničku ocjenu: Technical and Test Institute for Construction Prague (TZUS)
   Prijavljeno tijelo/a: 2873, Institut za čelične konstrukcije i mehaniku materijala (IFSW), Darmstadt
6. Navedeno svojstvo/a:

Bitna obilježja	**Svojstvo**	**Usklađene tehničke specifikacije**
Mehanička čvrstoća i stabilnost (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Karakteristične vrijednosti za otpor	Prilog C6 – C40	
Pomicanja	Prilog C5 – C39	
Trajnost	Prilog B1	
Zaštita od požara (BWR 2)		
Ponašanje u slučaju požara	Tiple zadovoljavaju zahtjeve klase A1	
Higijena, zdravlje i zaštita okoliša (BWR 3)		
Sadržaj, emisije i/ili oslobađanje opasnih tvari	Svojstvo nije ocijenjeno	

Svojstvo gore navedenog proizvoda odgovara navedenom svojstvu / navedenim svojstvima. Za izradu Izjave o svojstvima prema Odredbi (EU) br. 305/2011 isključivo je odgovoran gore navedeni proizvođač.

Potpisano za i u ime proizvođača od strane:

Originalni dokument potpisao/la:	Originalni dokument potpisao/la:
Frank Wolpert (Prokurist – voditelj proizvoda, odjela, marketinga)	Dr. –Ing. Siegfried Beichter (Prokurist – voditelj odjela za sigurnost proizvoda)

Künzelsau, 16.12.2022.

TELJESÍTMÉNYNYILATKOZAT

Sz. LE_5918240330_03_M_WIT-PM 200(2)

Ez a német nyelvről lefordított változat.
Eltérés esetén a német eredetit kell érvényesnek tekinteni.

1. Terméktípus egyértelmű azonosító kódja: Würth WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical injekciós rendszer
   Cikkszám: 591824*;
   090546*; 090547*; 59160*;
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
   090344 204; 090344 205
2. Felhasználási cél(ok): Injekciós rendszer falazatban való horgonyzáshoz
3. Gyártó: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. A teljesítményállandóság értékelésére és ellenőrzésére szolgáló rendszer(ek): 1-es rendszer
5. Európai értékelési dokumentum: EAD 330076-01-0604
   Európai Műszaki Értékelés: ETA-13/0037, 2022.12.16.
   Műszaki értékelő szervezet: Technical and Test Institute for Construction Prague (TZUS)
   Bejelentett szerv(ek): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Nyilatkozatban szereplő teljesítmény(ek):

Lényeges jellemzők	**Teljesítmény**	**Harmonizált műszaki specifikáció**
Mechanikai szilárdság és állékonyság (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Jellemző ellenállósági értékek	C6 – C40 melléklet	
Elmozdulások	C5 – C39 melléklet	
Tartósság	B1 melléklet	
Tűzvédelem (BWR 2)		
Tűzállóság	A horgonyok teljesítik az A1 osztály követelményeit	
Higiénia, egészség és környezetvédelem (BWR 3)		
Veszélyesanyag-tartalom, -emisszió és/vagy veszélyes anyagok felszabadulása	A teljesítmény nincs értékelve	

A fent megnevezett termék teljesítménye megfelel a teljesítménynyilatkozatban rögzített teljesítménynek/teljesítményeknek. A 305/2011 sz. EU rendelet előírásai alapján készült teljesítménynyilatkozat összeállítása kizárólag a fent nevezett gyártó felelőssége.

A gyártó képviseletében és nevében aláírta:

Az eredeti példányt aláírta:

Frank Wolpert
(cégvezető – termékmenedzsment-, divízió-, marketingvezető)

Az eredeti példányt aláírta:

Dr. –Ing. Siegfried Beichter
(cégvezető – termékbiztonsági vezető)

Künzelsau, 2022.12.16.

DICHIARAZIONE DI PRESTAZIONE

N. LE_5918240330_03_M_WIT-PM 200(2)

La presente è la versione tradotta dal tedesco.
In caso di incertezze si considera valido l'originale in tedesco.

1. Codice di identificazione unico del prodotto-tipo: Würth Injektionssystem WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical (Ancorante chimico - sistema ad iniezione Würth WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical)
Art. n.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Utilizzo/i previsto/i: Sistema a iniezione per l'ancoraggio in muratura
3. Azienda produttrice: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Sistema/i di valutazione e verifica della prestazione: Sistema 1
5. Documento per la Valutazione Europea: EAD 330076-01-0604
Valutazione tecnica europea: ETA-13/0037 del 16/12/2022
Organismo di valutazione tecnica: Technical and Test Institute for Construction Prague (TZUS)
Organismo/i notificato/i: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Prestazione/i dichiarata/e:

Caratteristiche essenziali	**Prestazione**	**Norma tecnica armonizzata**
Resistenza meccanica e stabilità (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Valori caratteristici di resistenza	Allegati C6 – C40	
Variazioni	Allegati C5 – C39	
Durabilità	Allegato B1	
Sicurezza in caso di incendio (BWR 2)		
Reazione al fuoco	I tasselli soddisfano i requisiti della Classe A1	
Igiene, salute e ambiente (BWR 3)		
Contenuto, emissione e/o rilascio di sostanze pericolose	Prestazione non valutata	

La prestazione del prodotto di cui sopra è conforme alla prestazione dichiarata/alle prestazioni dichiarate. Si rilascia la presente dichiarazione di prestazione ai sensi del Regolamento (UE) N. 305/2011 sotto la responsabilità esclusiva del suddetto fabbricante.

Firmato a nome e per conto del fabbricante da:

Firmato in originale da:

Frank Wolpert
(Procuratore – Responsabile Divisione Prodotto, Divisioni, Marketing)

Firmato in originale da:

Dr. –Ing. Siegfried Beichter
(Procuratore – Responsabile Sicurezza del prodotto)

Künzelsau, 16.12.2022

EKSPLOATACINIŲ SAVYBIŲ DEKLARACIJA

Nr. LE_5918240330_03_M_WIT-PM 200(2)

Tai yra vertimas iš vokiečių kalbos.
Kilus abejonėms, vadovautis originalu vokiečių kalba.

1. Produkto tipo unikalus atpažinimo kodas: „Würth" injekcinė sistema WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Prekės Nr.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Naudojimo paskirtis (-ys): Injekcinė sistema tvirtinimui į mūrą
3. Gamintojas: „Adolf Würth GmbH & Co. KG"
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Eksploatacinių savybių atsparumo įvertinimo ir patikrinimo sistema (-os): 1 sistema
5. Europos įvertinimo dokumentas: EAD 330076-01-0604
Europos techninis įvertinimas: ETA-13/0037, 2022 m. gruodžio 16 d., pirmadienis
Techninio vertinimo įstaiga: Prahos statybos technikos ir bandymų institutas (TZUS)
Notifikuotoji (-osios) įstaiga (-os): 2873, „Institut für Stahlbau und Werkstoffmechanik" (IFSW), Darmštatas

6. Deklaruojama (-os) eksploatacinė (-s) savybė (-s):

Pagrindinės charakteristikos	**Eksploatacinės savybės**	**Darnusis techninis standartas**
Mechaninis stiprumas ir stabilumas (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Būdingas atsparumas	C6 – C40 priedas	
Pokyčiai	C5 – C39 priedas	
Ilgaamžiškumas	B1 priedas	
Priešgaisrinė apsauga (BWR 2)		
Degumas	Kaiščiai atitinka A1 klasės reikalavimus	
Higiena, sveikata ir aplinkosauga (BWR 3)		
Pavojingų medžiagų turinys, emisija ir (arba) išskyrimas	Neįvertinta eksploatacinė savybė	

Turimo produkto eksploatacinės savybės atitinka deklaruotas eksploatacines savybes. Už eksploatacinių savybių deklaracijos, atitinkančios potvarkį (ES) Nr. 305/2011, sudarymą atsako tik nurodytas gamintojas.

Pasirašo gamintojas ir atstovas gamintojo vardu:

Originalą pasirašė:

Frank Wolpert
(Įgaliotas asmuo – Produktų, padalinių, rinkodaros skyriaus vadovas)

Originalą pasirašė:

Dr. inž. Siegfried Beichter
(Įgaliotas asmuo – Produktų saugos skyriaus vadovas)

Kiuncelsau, 2022-12-16

EKSPLUATĀCIJAS ĪPAŠĪBU DEKLARĀCIJA

Nr. LE_5918240330_03_M_WIT-PM 200(2)

Šī ir no vācu valodas tulkota dokumenta versija.
Šaubu gadījumā spēkā ir oriģināls vācu valodā.

1. Unikāls izstrādājuma tipa identifikācijas kods: Würth injekcijas sistēma WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Preces Nr.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Lietojuma mērķis(-i): Injekcijas sistēma enkurošanai mūrī
3. Ražotājs: Uzņēmums "Adolf Würth GmbH & Co. KG"
Adrese: Reinhold-Würth-Str. 12–17
D – 74653 Künzelsau (Kincelzau, Vācija)
4. Eksploatācijas īpašību noturības novērtējuma un pārbaudes sistēma(-as): 1 sistēma
5. Eiropas novērtējuma dokuments: EAD 330076-01-0604
Eiropas Tehniskais novērtējums: ETA-13/0037 no 2022. gada 16. decembra
Tehniskā novērtējuma iestāde: Technical and Test Institute for Construction Prague TZUS (Prāga)
Paziņotā(-ās) iestāde(-es): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt (Darmštate)
6. Deklarētā veiktspēja(-as):

Būtiskie raksturlielumi	**Ekspluatācijas īpašības**	**Saskaņotā tehniskā specifikācija**
Mehāniskā izturība un stiprība (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Raksturīgie pretestības parametri	C6-C40 pielikums	
Novirzes	C5 -C39 pielikums	
Izturīgums	B1. pielikums	
Ugunsdrošība (BWR 2)		
Uzvedība degšanas gadījumā	Dībeļi atbilst A 1 klases prasībām	
Higiēna, veselība un vides aizsardzība (BWR 3)		
Bīstamu vielu saturs, emisija un/vai izdalīšana	Īpašība nav vērtēta	

Šā produkta ekspluatācijas īpašības atbilst deklarētajai(-ām) ekspluatācijas īpašībai(-ām). Par ekspluatācijas īpašību deklarācijas sagatavošanu saskaņā ar Regulu (ES) Nr. 305/2011 ir atbildīgs tikai iepriekš minētais ražotājs.

Ražotāja un ražotāja pārstāvja paraksts:

Oriģinālu parakstījis:

Franks Volperts (Frank Wolpert)

(Prokūrists – produkta, nodaļu, mārketinga vadītājs)

Oriģinālu parakstījis:

Dr. Ing. Siegfried Beichter (Zigfrīds Beihters)
(Prokūrists – kvalitātes sistēmas vadītājs)

Künzelsau (Kincelzava), 16.12.2022.

DIKJARAZZJONI TA' PRESTAZZJONI

Nru LE_5918240330_03_M_WIT-PM 200(2)

Din hija l-verżjoni tradotta mill-Ġermaniż.
F'każ ta' dubju jgħodd id-dokument oriġinali bil-lingwa Ġermaniża.

1. Kodiċi uniku ta' identifikazzjoni tat-tip ta' prodott: Würth Sistema b'Injezzjoni WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Nru tal-oġġett: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Użu/i intenzjonat/i: Sistema b'injezzjoni, għall-ankraġġ fil-ħitan tal-ġebel
3. Manifattur: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Sistema jew sistemi ta' valutazzjoni u verifika tal-kostanza ta' prestazzjoni: Sistema 1
5. Dokument Ewropew ta' valutazzjoni: EAD 330076-01-0604
Valutazzjoni Teknika Ewropea: ETA-13/0037 ta' 16/12/2022
Korp tal-Valutazzjoni Teknika: Technical and Test Institute for Construction Prague (TZUS)
Korp/i nnotifikat/i: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt, Germany

6. Prestazzjoni/jiet ddikjarata/i:

Karatteristiċi essenzjali	**Prestazzjoni**	**Speċifikazzjoni teknika armonizzata**
Stabbiltà u ebusija mekkanika (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Valuri karatteristiċi għar-reżistenza	Anness C6 – C40	
Spostamenti	Anness C5 – C39	
Durabbiltà	Anness B1	
Protezzjoni kontra n-nar (BWR 2)		
Reazzjoni għan-nar	Il-kavilji jissodisfaw ir-rekwiżiti għall-klassi A1	
Iġjene, saħħa u protezzjoni tal-ambjent (BWR 3)		
Kontenut, emissjoni u/jew rilaxx ta' sustanzi perikoluż	Prestazzjoni mhux stabbilita	

Il-prestazzjoni tal-prodott identifikat hawn fuq hija konformi mal-prestazzjonijiet iddikjarati. Din id-dikjarazzjoni ta' prestazzjoni hi maħruġa skont ir-Regolament (UE) Nru 305/2011 taħt ir-responsabbiltà unika tal-manifattur identifikat hawn fuq.

Iffirmat għal u f'isem il-manifattur minn:

Fid-dokument oriġinali, iffirmat minn:

Frank Wolpert
(Rapp. Awtorizzat – Kap tad-Dipartiment tal-Prodotti, Oqsma, Kummerċ)

Fid-dokument oriġinali, iffirmat minn:

Dr. –Ing. Siegfried Beichter
(Rapp. Awtorizzat – Kap, Ġestjoni tas-Sigurtà tal-Prodotti)

Künzelsau, 16/12/2022

PRESTATIEVERKLARING

Nr. LE_5918240330_03_M_WIT-PM 200(2)

Dit is een uit het Duits vertaalde versie.
In twijfelgevallen geldt het Duitse origineel.

1. Eenduidige identificatiecode van het producttype: Würth injectiesysteem WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Art.nr.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Gebruiksdoel(en): Injectiesysteem voor verankering in metselwerk
3. Fabrikant: Adolf Würth GmbH & Co. KG
Reinhold- Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Systeem/systemen voor beoordeling en verificatie van de prestatiebestendigheid: Systeem 1
5. Europees beoordelingsdocument: EAD 330076-01-0604
Europese technische beoordeling: ETA-13/0037 d.d. 16 december 2022
Technische beoordelingsinstantie: Technical and Test Institute for Construction Prague (TZUS)
Aangemelde instantie(s): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Vastgestelde prestatie(s):

Belangrijkste eigenschappen	**Prestatie**	**Geharmoniseerde technische specificatie**
Mechanische sterkte en stabiliteit (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Karakteristieke waarden voor weerstand	Bijlage C6 – C40	
Verschuivingen	Bijlage C5 – C39	
Duurzaamheid	bijlage B1	
Brandveiligheid (BWR 2)		
Brandgedrag	De pluggen voldoen aan de vereisten van klasse A1	
Hygiëne, gezondheid en milieubescherming (BWR 3)		
Inhoud, emissie en / of vrijkomen van gevaarlijke stoffen	prestatie niet beoordeeld	

De prestatie van het bovenvermelde product voldoet aan de vastgestelde prestatie(s). Voor het opstellen van de prestatieverklaring overeenkomstig verordening (EU) nr. 305/2011 is uitsluitend de bovengenoemde fabrikant verantwoordelijk.

Ondertekend voor de fabrikant en in naam van de fabrikant door:

Origineel ondertekend door:

Frank Wolpert
(Procuratiehouder – Regiomanager Product, Divisies, Marketing)

Origineel ondertekend door:

dr.-ing. Siegfried Beichter
(Procuratiehouder - Hoofd Productveiligheid)

Künzelsau, 16/12/2023

YTELSESERKLÆRING

Nr. LE_5918240330_03_M_WIT-PM 200(2)

Dette er en versjon som er oversatt fra tysk.
Skulle det oppstå tvil, gjelder den tyske originalen.

1. Entydig kode for produkttypen: Würth injeksjonssystem WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   Art.-nr.: 591824*;
   090546*; 090547*; 59160*;
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
   090344 204; 090344 205
2. Bruksområde: Injeksjonssystem til forankring i mur
3. Produsent: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. System(er) til vurdering og kontroll av ytelsesbestandigheten: System 1
5. Europeisk vurderingsdokument: EAD 330076-01-0604
   Europeisk teknisk godkjenning: ETA-13/0037 fra 16.12.2022
   Teknisk godkjenningsorgan: Technical and Test Institute for Construction Prague (TZUS)
   Teknisk(e) kontrollorgan(er): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt, Tyskland
6. Erklært(e) ytelse(r):

Vesentlige egenskaper	**Ytelse**	**Harmonisert teknisk spesifikasjon**
Mekanisk fasthet og stabilitet (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Karakteristiske verdier for motstand	Vedlegg C6 – C40	
Forskyvninger	Vedlegg C5 – C39	
Holdbarhet	Vedlegg B1	
Brannvern (BWR 2)		
Egenskaper ved brann	Pluggene oppfyller kravene til klasse A1	
Hygiene, helse og miljøvern (BWR 3)		
Innhold, emisjon og/eller utslipp av farlige stoffer	Ytelse ikke vurdert	

Ytelsen til dette produktet tilsvarer den erklærte ytelsen / de erklærte ytelsene. Produsenten som er nevnt over, er eneansvarlig for at det lages en ytelseserklæring i henhold til forordningen (EU) nr. 305/2011.

Undertegnet for produsenten og på vegne av produsenten:

Originalen underskrevet av:

Frank Wolpert
(prokurist – områdeleder produkt, divisjoner, markedsføring)

Originalen underskrevet av:

Dr. ing. Siegfried Beichter
(prokurist – leder produktsikkerhet)

Künzelsau, den 16.12.2022

DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH

Nr LE_5918240330_03_M_WIT-PM 200(2)

Ten dokument jest wersją przełożoną z języka niemieckiego.
W razie wątpliwości obowiązuje wersja niemiecka.

1. Niepowtarzalny kod identyfikacyjny typu produktu: Würth system do zastrzyków WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   Nr artykułu: 591824*;
   090546*; 090547*; 59160*;
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
   090344 204; 090344 205
2. Przeznaczenie: system do zastrzyków do kotwienia w murze
3. Producent: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. System (systemy) oceny i weryfikacji stałości właściwości użytkowych: System 1
5. Europejski dokument oceny: EAD 330076-01-0604
   Europejska Ocena Techniczna: ETA-13/0037 z dnia 16 grudnia 2022 r.
   Placówka sporządzająca ocenę techniczną: Technical and Test Institute for Construction Prague (TZUS)
   Jednostka/-i notyfikowana/-e: 2873, Institut für Stahlbau und Werkstoffmechanik (Instytut konstrukcji stalowych i mechaniki tworzyw), Darmstadt
6. Deklarowane właściwości użytkowe:

Zasadnicze charakterystyki	**Właściwości użytkowe**	**Zharmonizowana specyfikacja techniczna**
Wytrzymałość mechaniczna i stateczność (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Wartości charakterystyczne dla oporu	Załącznik C6 – C40	
Przesunięcia	Załącznik C5 – C39	
Wytrzymałość	Załącznik B1	
Ochrona przeciwpożarowa (BWR 2)		
Klasyfikacja ogniowa	Kołki spełniają wymagania klasy A1	
Higiena, zdrowie i ochrona środowiska (BWR 3)		
Zawartość, emisja i / lub uwalnianie substancji niebezpiecznych	Nie oceniano właściwości	

Właściwości użytkowe powyższego produktu pokrywają się z deklarowanymi właściwościami użytkowymi. Za sporządzenie deklaracji właściwości użytkowych zgodnie z rozporządzeniem (UE) nr 305/2011 odpowiedzialny jest wyłącznie wyżej wymieniony producent.

Podpisano za producenta i w jego imieniu:

Oryginał podpisany przez:

Frank Wolpert
(Prokurent - Kierownik działu produktów i marketingu)

Oryginał podpisany przez:

Dr inż. Siegfried Beichter
(Prokurent - Kierownik działu bezpieczeństwa produktów)

Künzelsau, dnia 2022-12-16 r.

DECLARAÇÃO DE DESEMPENHO

N.º LE_5918240330_03_M_WIT-PM 200(2)

Versão traduzida da versão alemã.
Em caso de dúvida é válido o original alemão.

1. Código de identificação inequívoco do tipo de produto: Sistema de injeção WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
N.° art.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Fim/fins de utilização: Sistema de injeção para ancoragem em parede de alvenaria
3. Fabricante: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Sistema(s) para avaliação e verificação da constância do desempenho: Sistema 1
5. Documento de avaliação europeu: EAD 330076-01-0604
Avaliação Técnica Europeia: ETA-13/0037 de 16 de dezembro de 2022
Organismo de Avaliação Técnica: Technical and Test Institute for Construction Prague (TZUS)
Organismo(s) notificado(s): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Desempenho(s) declarado(s):

Características essenciais	**Desempenho**	**Especificação técnica harmonizada**
Resistência mecânica e estabilidade (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Valores característicos para resistência	Anexo C6 - C40	
Deslocamentos	Anexo C5 - C39	
Durabilidade	Anexo B1	
Proteção contra incêndio (BWR 2)		
Reação ao fogo	As cavilhas cumprem os requisitos da classe A1	
Higiene, saúde e proteção do ambiente (BWR 3)		
Teor, emissão e/ou libertação de substâncias perigosas	Desempenho não avaliado	

O desempenho do produto corresponde ao(s) desempenho(s) declarado(s). O fabricante acima mencionado é o único responsável pela elaboração da declaração de desempenho, em conformidade com o Regulamento (EU) n.° 305/2011.

Assinado pelo fabricante e em nome do fabricante por:

Documento original assinado por:

Frank Wolpert
(Procurador – Chefe de Setor na área de Produtos, Divisões e Marketing)

Documento original assinado por:

Dr. Eng.° Siegfried Beichter
(Procurador - Diretor na área da Segurança do Produto)

Künzelsau, a 16.12.2022

DECLARAȚIE DE PERFORMANȚĂ

Nr. LE_5918240330_03_M_WIT-PM 200(2)

Prezenta versiune este o traducere din limba germană.
În caz de dubiu se aplică originalul în limba germană.

1. Cod unic de identificare al tipului de produs: Sistem de injecție Würth: WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   Articol Nr.: 591824*; 090546*; 090547*; 59160*; 5916108999; 5916110999; 5916112999; 5916116999; 5916208999; 5916210999; 5916212999; 5916216999; 090344 123; 090344 163; 090344 164; 090344 165; 090344 203; 090344 204; 090344 205
2. Scopul sau scopurile de utilizare: Sistem de injecție pentru ancorarea în zidărie
3. Producător: Adolf Würth GmbH & Co. KG
   Reinhold- Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. Sistem(e) pentru evaluarea și verificarea constanței performanței: Sistem 1
5. Document european de evaluare: EAD 330076-01-0604
   Evaluare tehnică europeană: ETA-13/0037 din 16.12.2022
   Organism de evaluare tehnică: Technical and Test Institute for Construction Prague (TZUS)
   Organism(e) notificat(e): 2873, Institut für Stahlbau und Werkstoffmechanik (Institutul pentru Construcții din Oțel și Mecanica Materialelor – IFSW), Darmstadtl
6. Performanța(e) declarată(e):

Caracteristici esențiale	**Performanță**	**Specificație tehnică armonizată**
Rezistență mecanică și stabilitate (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Valori caracteristice pentru rezistență	Anexa C6 – C40	
Deplasări	Anexa C5 – C39	
Durabilitate	Anexa B1	
Protecție contra incendiilor (BWR 2)		
Comportament la incendiu	Diblurile respectă cerințele pentru clasa A1	
Igienă, sănătate și protecția mediului înconjurător (BWR 3)		
Conținut, emisie și/sau degajarea de substanțe periculoase	Performanța nu este evaluată	

Performanța produsului prezentat este în conformitate cu performanța declarată / cu performanțele declarate. Pentru realizarea declarației de performanță în conformitate cu Ordonanța (UE) nr. 305/2011, singurul responsabil este producătorul menționat mai sus.

Semnată pentru și în numele producătorului, de către:

Semnat în original de:

Frank Wolpert
(Reprezentant legal – manager domeniu Produse, divizii, marketing)

Semnat în original de:

Dr.-Ing. Siegfried Beichter
(Reprezentant legal – manager departament Siguranța produselor)

Künzelsau, 16.12.2022

ДЕКЛАРАЦИЯ ХАРАКТЕРИСТИК

№ LE_5918240330_03_M_WIT-PM 200(2)

Здесь речь идет о переведенной с немецкого языка версии.
В случае сомнений руководствоваться немецким оригиналом.

1. Однозначная маркировка типа продукта: Система инъекции Würth WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   Арт.№: 591824*;
   090546*; 090547*; 59160*;
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
   090344 204; 090344 205
2. Цель(и) применения: Система инъекции для закрепления в каменной кладке
3. Изготовитель: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. Система(ы) оценки и проверки стабильности характеристик: Система 1
5. Европейский оценочный документ: EAD 330076-01-0604
   Европейская техническая оценка: ETA-13/0037 от 16.12.2022
   Орган технической оценки Technical and Test Institute for Construction Prague (TZUS)
   Уполномоченный(е) орган(ы): 2873, Институт стальных конструкций и механики материалов (IFSW), Дармштадт
6. Заявленная(-ые) характеристика(-и):

Важные признаки	**Характеристика**	**Гармонизированная техническая спецификация**
Механическая прочность и устойчивость (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Типичные значения для сопротивления	Приложение C6 – C40	
Перемещения	Приложение C5 – C39	
Долговечность	Приложение B1	
Противопожарная защита (BWR 2)		
Огнестойкость	Дюбели выполняют требования класса A1	
Гигиена, здоровье и охрана окружающей среды (BWR 3)		
Состав, эмиссия и/или выделение опасных веществ	характеристика не определена	

Характеристика вышеприведенного продукта соответствует заявленной характеристике/заявленным характеристикам. За составление декларации характеристик в соответствии с предписанием (EU) № 305/2011 отвечает исключительно вышеупомянутый изготовитель.

Подписано за изготовителя и от имени изготовителя:

Оригинал подписан:

Франк Вольперт
(прокурист – начальник отдела маркетинга, управления продуктами)

Оригинал подписан:

Д-р-инж. Зигфрид Байхтер
(прокурист - начальник отдела безопасности продукции)

Кюнцельзау, 16.12.2022

PRESTANDADEKLARATION

Nr. LE_5918240330_03_M_WIT-PM 200(2)

Denna version är översatt från tyska.
I tveksamma fall gäller originalet på tyska.

1. Produkttypens unika identifikationskod: Würth injekteringssystem WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
   Art.-nr.: 591824*;
   090546*; 090547*; 59160*;
   5916108999; 5916110999; 5916112999; 5916116999;
   5916208999; 5916210999; 5916212999; 5916216999;
   090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
   090344 204; 090344 205
2. Användningsändamål: Injekteringssystem för förankring i murverk
3. Tillverkare: Adolf Würth GmbH & Co. KG
   Reinhold-Würth-Str. 12 - 17
   D – 74653 Künzelsau
4. System för bedömning och kontroll av prestandabeständighet: System 1
5. Europeiskt bedömningsdokument: EAD 330076-01-0604
   Europeisk teknisk bedömning: ETA-13/0037 från 2022-12-16
   Tekniskt bedömningsorgan: Technical and Test Institute for Construction Prague (TZUS)
   Notificerade organ: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Deklarerad prestanda:

Väsentliga egenskaper	**Prestanda**	**Harmoniserad teknisk specifikation**
Mekanisk hållfasthet och stabilitet (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Karakteristiska värden för motstånd	Bilaga C6 – C40	
Förskjutningar	Bilaga C5 – C39	
Varaktighet	Bilaga B1	
Brandskydd (BWR 2)		
Branduppförande	Pluggarna uppfyller kraven för klass A1	
Hygien, hälsa och miljöskydd (BWR 3)		
Innehåll, emission och/eller frisättning av farliga ämnen	Prestanda ej bedömd	

Ovanstående produkts prestanda överensstämmer med den prestanda som anges. Denna prestandadeklaration utfärdas i överensstämmelse med förordning (EU) nr. 305/2011 på eget ansvar av ovanstående tillverkare.

Undertecknad för tillverkaren och på tillverkarens vägnar av:

I originalet undertecknad av:

Frank Wolpert
(Prokurist – Områdeschef produkt, divisioner, marknadsföring)

I originalet undertecknad av:

Dr.-ing. Siegfried Beichter
(Prokurist - Chef produktsäkerhet)

Künzelsau, 2022-12-16

VYHLÁSENIE O VLASTNOSTIACH

Č. LE_5918240330_03_M_WIT-PM 200(2)

Jedná sa tu o preloženú nemeckú verziu.
V prípade pochybností platí nemecký originál.

1. Jednoznačný identifikačný kód typu výrobku: Würth vstrekovací systém WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Č. výr.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Účel(y) použitia: Injekčný systém na kotvenie do muriva
3. Výrobca: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Systém (systémy) na posudzovanie a overovanie odolnosti parametrov: Systém 1
5. Európsky vyhodnocovací dokument: EAD 330076-01-0604
Európske technické posúdenie: ETA-13/0037 zo dňa 16.12.2022
Orgán pre technické posudzovanie: Technical and Test Institute for Construction Prague (TZUS)
Notifikovaný orgán (-y): 2873, Inštitút pre oceľové konštrukcie a mechaniku materiálov (IFSW), Darmstadt
6. Vlastnosť (vlastnosti) uvedené vo vyhlásení:

Podstatné znaky	**Vlastnosť**	**Harmonizovaná technická špecifikácia**
Mechanická pevnosť a stabilita (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Charakteristické hodnoty pre odolnosť	príloha C6 – C40	
Posuvy	príloha C5 – C39	
Odolnosť	príloha B1	
Protipožiarna ochrana (BWR 2)		
Reakcia látky pri požiari	Hmoždinky spĺňajú požiadavky pre triedu A1	
Hygiena, ochrana zdravia a životného prostredia (BWR 3)		
Obsah, emisie a/alebo uvoľňovanie nebezpečných látok	Vlastnosť nie je hodnotená	

Vlastnosť vyššie uvedeného produktu zodpovedá vyhlásenej vlastnosti/vyhláseným vlastnostiam. Za zhotovenie vyhlásenia o parametroch v súlade s Nariadením (EÚ) č. 305/2011 je zodpovedný výhradne hore uvedený výrobca.

Podpísané pre výrobcu a v mene výrobcu:

Pôvodne podpísal:

Frank Wolpert
(Prokurista – vedúci oddelenia výrobkov, divízií a marketingu)

Pôvodne podpísal:

Dr. –Ing. Siegfried Beichter
(Prokurista - vedúci pre bezpečnosť výrobkov)

Künzelsau, 16.12.2022

IZJAVA O LASTNOSTIH

Št. LE_5918240330_03_M_WIT-PM 200(2)

To besedilo je prevod iz nemščine.
Ob dvomu velja nemški izvirnik.

1. Enotna identifikacijska oznaka tipa izdelka: Vbrizgalni sistem Würth WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Št. art.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Nameni uporabe: Vbrizgalni sistem za sidranje v zidovih
3. Proizvajalec: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12–17
D – 74653 Künzelsau, Nemčija
4. Sistemi za vrednotenje in preverjanje trajnosti lastnosti: Sistem 1
5. Evropski ocenjevalni dokument: EAD 330076-01-0604
Evropsko tehnično vrednotenje: ETA-13/0037 z dne 16. 12. 2022
Organ, ki je opravil tehnično vrednotenje: Technical and Test Institute for Construction Prague (TZUS)
Obveščeni organ: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Navedene lastnosti:

Bistvene značilnosti	**Lastnost**	**Harmonizirana tehnična specifikacija**
Mehanska odpornost in stabilnost (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Značilne vrednosti upora	Priloga C6 – C40	
Premiki	Priloga C5 – C39	
Trajnost	Priloga B1	
Protipožarna zaščita (BWR 2)		
Požarne lastnosti	Vložek izpolnjuje zahteve razreda A1	
Higiena, zdravje in varovanje okolja (BWR 3)		
Vsebnost, izpusti in/ali sproščanje nevarnih snovi	Lastnost ni ocenjena	

Lastnosti tega izdelka ustrezajo navedenim lastnostim. Za pripravo izjave o lastnostih po uredbi (EU) št. 305/2011 je odgovoren izključno zgoraj navedeni proizvajalec.

Podpis za proizvajalca in v njegovem imenu:

Original podpisal:

Frank Wolpert
(prokurist – vodja oddelka za izdelke, divizije, trženje)

Original podpisal:

Dr. –Ing. Siegfried Beichter
(prokurist – vodja za varnost izdelkov)

Künzelsau, 16. 12. 2022

PERFORMANS BEYANI

No. LE_5918240330_03_M_WIT-PM 200(2)

Burada söz konusu olan Almanca dilinden yapılmış bir çeviridir.
Şüpheli durumlarda Almanca orijinal metin geçerli olacaktır.

1. Ürün tipinin açık kodu: Würth Enjeksiyon sistemi WIT-PM 200, WIT-PM 200 express, WIT-PM 200 tropical
Ürün No.: 591824*;
090546*; 090547*; 59160*;
5916108999; 5916110999; 5916112999; 5916116999;
5916208999; 5916210999; 5916212999; 5916216999;
090344 123; 090344 163; 090344 164; 090344 165; 090344 203;
090344 204; 090344 205
2. Kullanma amacı (amaçları): Duvarda ankraj için enjeksiyon sistemi
3. Üretici: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Str. 12 - 17
D – 74653 Künzelsau
4. Performansın sürdürülebilirliğinin değerlendirilmesi ve kontrolü için sistem(ler): Sistem 1
5. Avrupa Değerlendirme Belgesi: EAD 330076-01-0604
Avrupa Teknik Değerlendirmesi: 16 Aralık 2022 tarihli ETA-13/0037
Teknik Değerlendirme Kuruluşu: Technical and Test Institute for Construction Prague (TZUS)
Akredite kuruluş(lar): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Beyan edilen performans(lar):

Önemli özellikler	**Performans**	**Uyumlandırılmış teknik nitelik**
Mekanik dayanıklılık ve kararlılık (BWR 1)		ETA-13/0037 EAD 330076-01-0604
Direnç için karakteristik değer	Ek C6 – C40	
Kaydırmalar	Ek C5 – C39	
Süreklilik	Ek B1	
Yangından koruma (BWR 2)		
Yangındaki tutum	Dübeller Sınıf A1 için beklentileri karşılamaktadır	
Hijyen, sağlık ve çevre koruma (BWR 3)		
İçerik, emisyon ve/veya tehlikeli maddelerin açığa çıkması	Performans değerlendirilmedi	

Mevcut ürünün performansı, beyan edilen performansa/beyan edilen performanslara uygundur. Performans beyanının 305/2011 numaralı yönetmelikle (AB) uyumlu olarak oluşturulmasından üretici tek başına sorumludur.

Üretici için ve üretici adına imzalayan:

Orijinalini imzalayan:

Frank Wolpert
(İmza yetkili – Bölüm Yöneticisi Ürün, Bölümler, Pazarlama)

Orijinalini imzalayan:

Dr. Müh. Siegfried Beichter
(İmza yetkili - Ürün güvenliği yöneticisi)

Künzelsau, 16.12.2022