

DECLARATION OF PERFORMANCE
NR. 5918500320_02_M_WIT-UH 300 (1)

LANGUAGE VERSIONS :

Language	Site
EN	2
ETA-17/0127 (EN)	4
BG	39
CZ	41
DA	43
DE	45
ES	47
ET	49
FI	51
FR	53
GA	55
GR	57
HR	59
HU	61
IT	63
LT	65
LV	67
MT	69
NL	71
NO	73
PL	75
PT	77
RO	79
RU	81
SE	83
SK	85
SL	87
TR	89

DECLARATION OF PERFORMANCE

No. 5918500320_02_M_WIT-UH 300 (1)

**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-UH 300
[Würth WIT-UH 300 injection system]
Art. No.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190 |
| 2. Intended use(s): | Bonded anchor for anchoring in concrete |
| 3. Manufactured by: | Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12-17
D-74653 Künzelsau |
| 4. System(s) of assessment and verification of constancy of performance: | System 1 |
| 5. European Assessment Document: | EAD 330499-01-0601, Edition 4/2020 |
| European Technical Assessment: | ETA-17/0127 - 11/13/2020 |
| Technical Assessment Body: | Deutsches Institut für Bautechnik (DIBT), Berlin |
| Notified Body or Bodies: | 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt |
| 6. Declared performance: | |

Essential characteristics	Performance	Harmonized technical specification
Mechanical resistance and stability (BWR 1)		EAD 330499-01-0601 ETA-17/0127 - 13. 11.2020
Characteristic tension resistance (static and quasi-static actions)	See Annex B3, C1 to C4, C6 to C7, C9 to C10	
Characteristic shear resistance (static and quasi-static actions)	See Annex C1, C5, C8, C11	
Displacements under short term and long term loading	See Annex C12 to C14	
Characteristic resistance and displacements for seismic design category C1 and C2	Annex C15 to C18	
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:



Frank Wolpert
Authorized Signatory, Head of Product
Management



Dr.-Ing. Siegfried Beichter
(Head of Quality, Authorized Signatory)

Künzelsau, January 01, 2021

Approval body for construction products
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and
Laender Governments



European Technical Assessment

ETA-17/0127
of 13 November 2020

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the
European Technical Assessment:

Deutsches Institut für Bautechnik

Trade name of the construction product

Würth Injection system WIT-UH 300 / WIT-VH 300 /
WIT-VM 300 for concrete

Product family
to which the construction product belongs

Bonded fastener for use in concrete

Manufacturer

Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12-17
74653 Künzelsau
DEUTSCHLAND

Manufacturing plant

Werk 3

This European Technical Assessment
contains

35 pages including 3 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 330499-01-0601, Edition 4/2020

This version replaces

ETA-17/0127 issued on 13 March 2019

European Technical Assessment

ETA-17/0127

English translation prepared by DIBt

Page 2 of 35 | 13 November 2020

The European Technical Assessment is issued by the Technical Assessment Body in its official language. Translations of this European Technical Assessment in other languages shall fully correspond to the original issued document and shall be identified as such.

Communication of this European Technical Assessment, including transmission by electronic means, shall be in full. However, partial reproduction may only be made with the written consent of the issuing Technical Assessment Body. Any partial reproduction shall be identified as such.

This European Technical Assessment may be withdrawn by the issuing Technical Assessment Body, in particular pursuant to information by the Commission in accordance with Article 25(3) of Regulation (EU) No 305/2011.

Specific Part

1 Technical description of the product

The "Würth Injection system WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete" is a bonded anchor consisting of a cartridge with injection mortar Injection mortar WIT-UH 300 / WIT-VH 300 / WIT-VM 300 and a steel element according to Annex A3 and A5.

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

The product description is given in Annex A.

2 Specification of the intended use in accordance with the applicable European Assessment Document

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 verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the anchor of at least 50 and/or 100 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 right 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 resistance to tension load (static and quasi-static loading)	See Annex B 3, C 1 to C 4, C 6 to C 7, C 9 to C 10
Characteristic resistance to shear load (static and quasi-static loading)	See Annex C 1, C 5, C 8, C 11
Displacements under short-term and long-term loading	See Annex C 12 to C 14
Characteristic resistance and displacements for seismic performance categories C1 and C2	See Annex C 15 to C 18

3.2 Hygiene, health and the environment (BWR 3)

Essential characteristic	Performance
Content, emission and/or release of dangerous substances	No performance assessed

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

In accordance with the European Assessment Document EAD 330499-01-0601 the applicable European legal act is: [96/582/EC].

The system to be applied is: 1

5 Technical details necessary for the implementation of the AVCP system, as provided for in the applicable European Assessment Document

Technical details necessary for the implementation of the AVCP system are laid down in the control plan deposited at Deutsches Institut für Bautechnik.

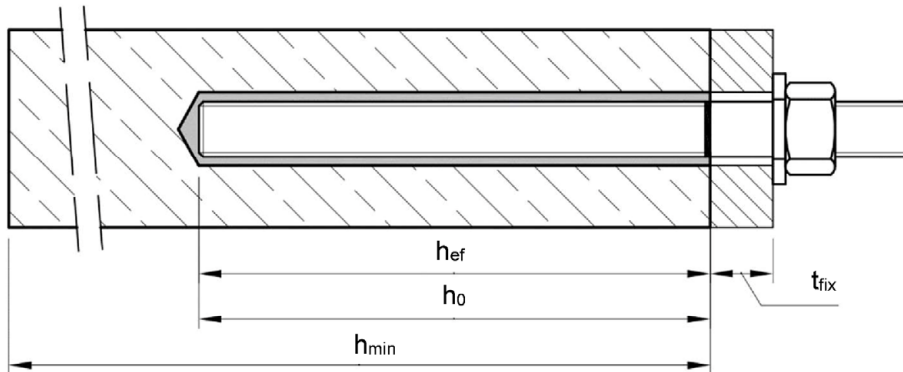
Issued in Berlin on 13 November 2020 by Deutsches Institut für Bautechnik

Dipl.-Ing. Beatrix Wittstock
Head of Section

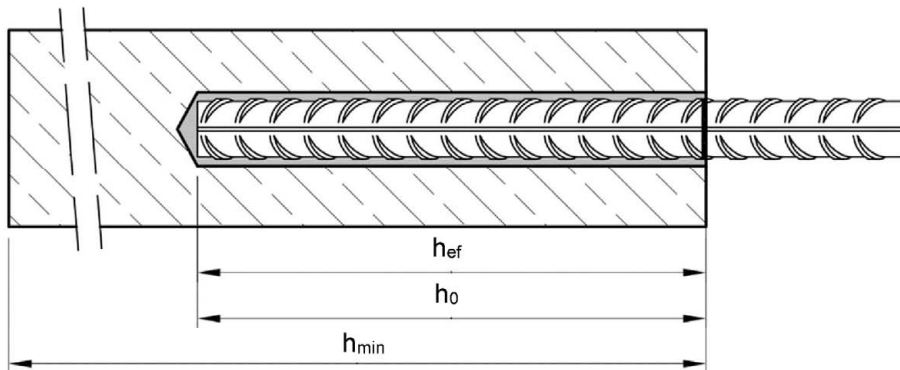
beglaubigt:
Baderschneider

Installation threaded rod M8 up to M30

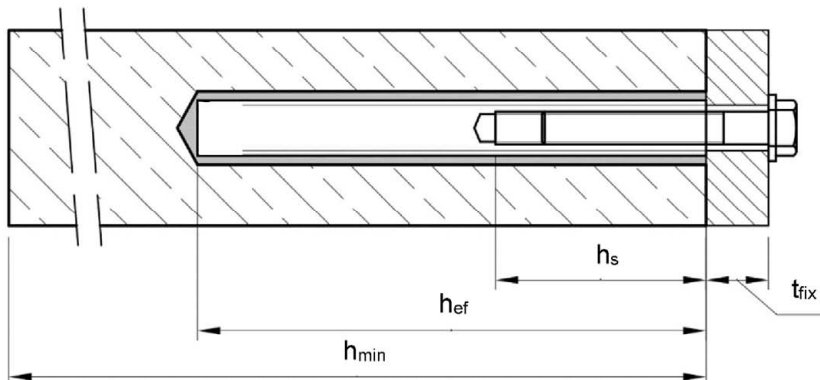
prepositioned installation or
push through installation (annular gap filled with mortar)



Installation reinforcing bar $\varnothing 8$ up to $\varnothing 32$



Installation internal threaded anchor rod IG-M6 up to IG-M20



- t_{fix} = thickness of fixture
 h_{ef} = effective anchorage depth
 h_0 = depth of drill hole
 h_{min} = minimum thickness of member

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

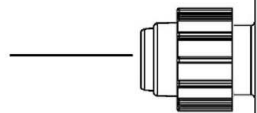
Product description
Installed condition

Annex A 1

Cartridge: WIT-UH 300 / WIT-VH 300 / WIT-VM 300

150 ml, 280 ml, 300 ml up to 333 ml and 380 ml up to 420 ml cartridge (Type: coaxial)

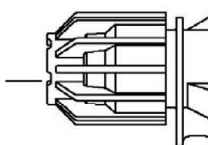
Sealing/Screw cap



Imprint: WIT-UH 300 / WIT-VH 300 / WIT-VM 300,
processing notes, charge-code, shelf life, storage
temperature, hazard-code, curing- and processing
time (depending on the temperature), with as well as
without travel scale

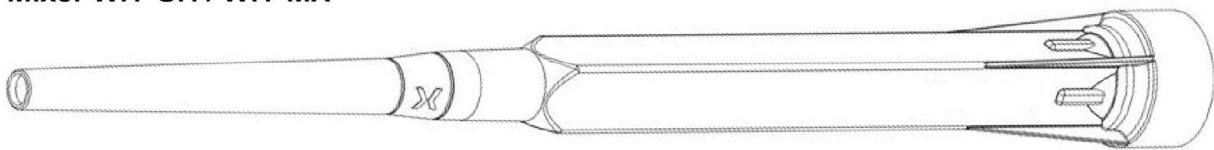
235 ml, 345 ml up to 360 ml and 825 ml cartridge (Type: "side-by-side")

Sealing/Screw cap

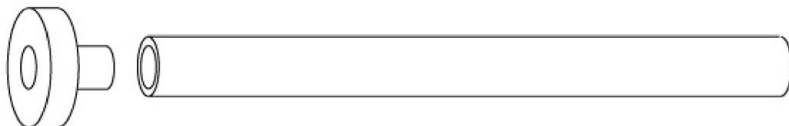


Imprint: WIT-UH 300 / WIT-VH 300 / WIT-VM 300,
processing notes, charge-code, shelf life, storage
temperature, hazard-code, curing- and processing
time (depending on the temperature), with as well as
without travel scale

Static Mixer WIT-UH / WIT-MX



Piston plug and
mixer extension

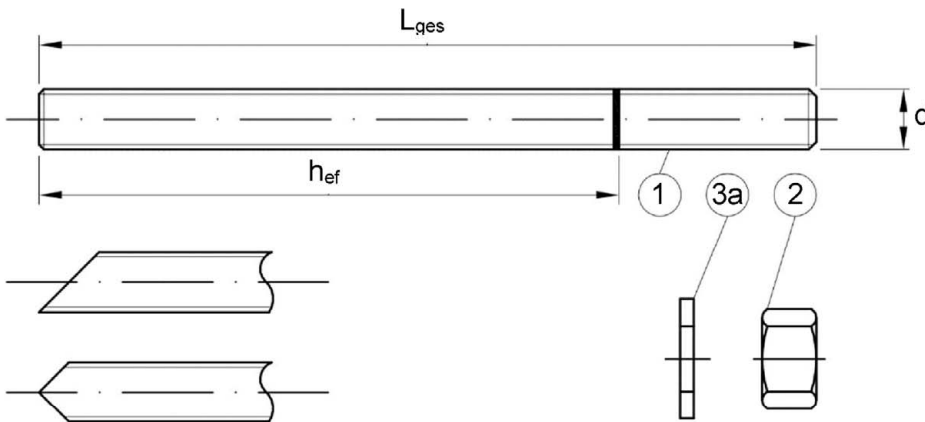


Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Product description
Injection system

Annex A 2

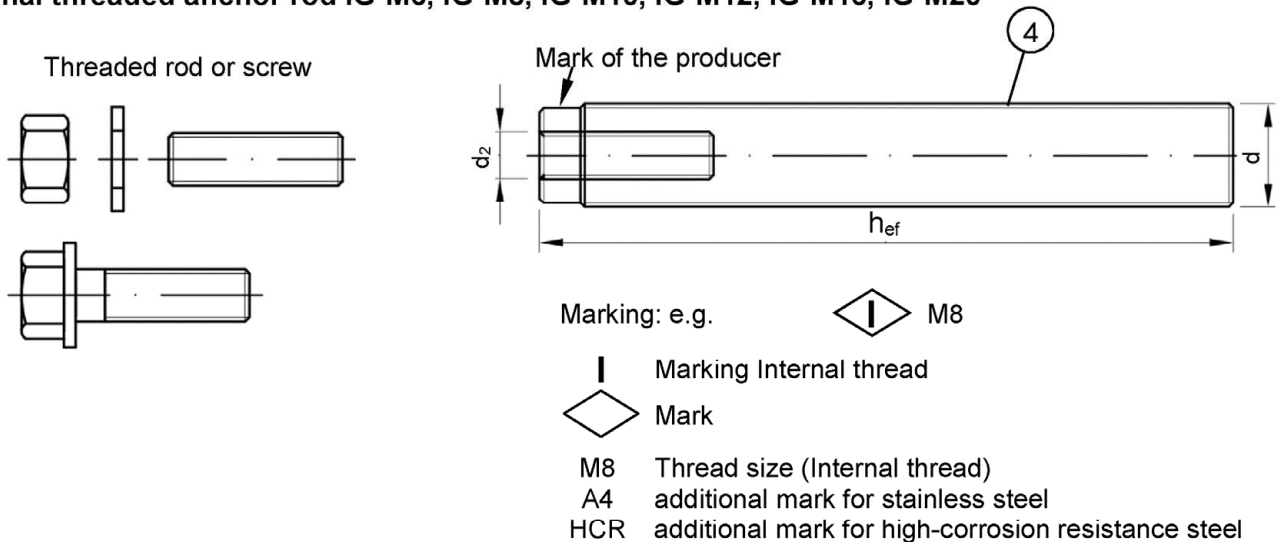
Threaded rod M8, M10, M12, M16, M20, M24, M27, M30 with washer and hexagon nut



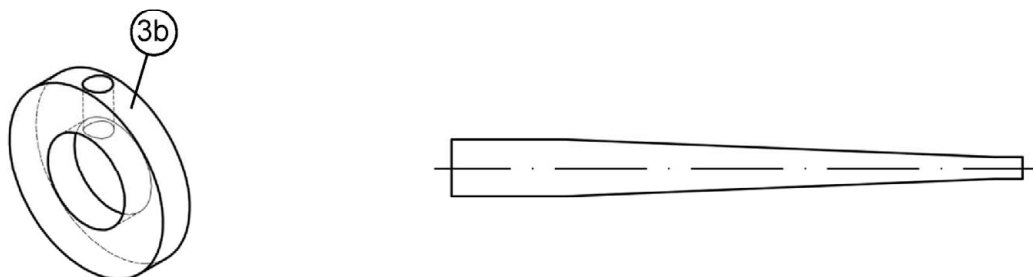
Commercial standard threaded rod with:

- Materials, dimensions and mechanical properties acc. Table A1
- Inspection certificate 3.1 acc. to EN 10204:2004
- Marking of embedment depth

Internal threaded anchor rod IG-M6, IG-M8, IG-M10, IG-M12, IG-M16, IG-M20



Filling washer and mixer reduction nozzle for filling the annular gap between anchor rod and fixture



Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Product description

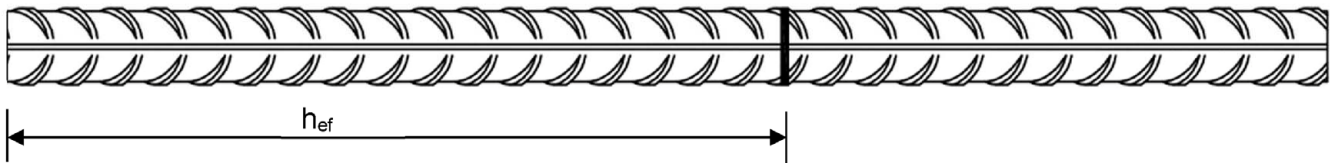
Threaded rod, internal threaded rod and filling washer

Annex A 3

Table A1: Materials

Part	Designation	Material				
Steel, zinc plated (Steel acc. to EN 10087:1998 or EN 10263:2001)						
- zinc plated ≥ 5 µm acc. to EN ISO 4042:1999 or						
- hot-dip galvanised ≥ 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	Threaded rod	Property class	Characteristic steel ultimate tensile strength	Characteristic steel yield strength	Elongation at fracture	
		acc. to EN ISO 898-1:2013	4.6	$f_{uk} = 400 \text{ N/mm}^2$	$f_{yk} = 240 \text{ N/mm}^2$	$A_5 > 8\%$
			4.8	$f_{uk} = 400 \text{ N/mm}^2$	$f_{yk} = 320 \text{ N/mm}^2$	$A_5 > 8\%$
			5.6	$f_{uk} = 500 \text{ N/mm}^2$	$f_{yk} = 300 \text{ N/mm}^2$	$A_5 > 8\%$
			5.8	$f_{uk} = 500 \text{ N/mm}^2$	$f_{yk} = 400 \text{ N/mm}^2$	$A_5 > 8\%$
			8.8	$f_{uk} = 800 \text{ N/mm}^2$	$f_{yk} = 640 \text{ N/mm}^2$	$A_5 \geq 12\%$ ³⁾
2	Hexagon nut	acc. to EN ISO 898-2:2012	4	for threaded rod class 4.6 or 4.8		
			5	for threaded rod class 5.6 or 5.8		
			8	for threaded rod class 8.8		
3a	Washer	Steel, zinc plated, hot-dip galvanised or sherardized (e.g.: EN ISO 887:2006, EN ISO 7089:2000, EN ISO 7093:2000 or EN ISO 7094:2000)				
3b	Filling washer	Steel, zinc plated, hot-dip galvanised or sherardized				
4	Internal threaded anchor rod	Property class	Characteristic steel ultimate tensile strength	Characteristic steel yield strength	Elongation at fracture	
		acc. to EN ISO 898-1:2013	5.8	$f_{uk} = 500 \text{ N/mm}^2$	$f_{yk} = 400 \text{ N/mm}^2$	$A_5 > 8\%$
			8.8	$f_{uk} = 800 \text{ N/mm}^2$	$f_{yk} = 640 \text{ N/mm}^2$	$A_5 > 8\%$
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	Threaded rod ¹⁾⁴⁾	Property class	Characteristic steel ultimate tensile strength	Characteristic steel yield strength	Elongation at fracture	
		acc. to EN ISO 3506-1:2009	50	$f_{uk} = 500 \text{ N/mm}^2$	$f_{yk} = 210 \text{ N/mm}^2$	$A_5 \geq 8\%$
			70	$f_{uk} = 700 \text{ N/mm}^2$	$f_{yk} = 450 \text{ N/mm}^2$	$A_5 \geq 12\%$ ³⁾
			80	$f_{uk} = 800 \text{ N/mm}^2$	$f_{yk} = 600 \text{ N/mm}^2$	$A_5 \geq 12\%$ ³⁾
2	Hexagon nut ¹⁾⁴⁾	acc. to EN ISO 3506-1:2009	50	for threaded rod class 50		
			70	for threaded rod class 70		
			80	for threaded rod class 80		
3a	Washer	A2: Material 1.4301 / 1.4307 / 1.4311 / 1.4567 or 1.4541, acc. to EN 10088-1:2014 A4: Material 1.4401 / 1.4404 / 1.4571 / 1.4362 or 1.4578, acc. to 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)				
3b	Filling washer	Stainless steel A4, High corrosion resistance steel				
4	Internal threaded anchor rod ¹⁾²⁾	Property class	Characteristic steel ultimate tensile strength	Characteristic steel yield strength	Elongation at fracture	
		acc. to EN ISO 3506-1:2009	50	$f_{uk} = 500 \text{ N/mm}^2$	$f_{yk} = 210 \text{ N/mm}^2$	$A_5 > 8\%$
			70	$f_{uk} = 700 \text{ N/mm}^2$	$f_{yk} = 450 \text{ N/mm}^2$	$A_5 > 8\%$
¹⁾ Property class 70 or 80 for threaded rods and hexagon nuts up to M24 and Internal threaded anchor rods up to IG-M16 ²⁾ for IG-M20 only property class 50 ³⁾ $A_5 > 8\%$ fracture elongation if <u>no</u> use for seismic performance category C2 ⁴⁾ Property class 80 only for stainless steel A4 and high corrosion resistance steel HCR						
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete					Annex A 4	
Product description Materials threaded rod and internal threaded rod						

Reinforcing bar $\varnothing 8, \varnothing 10, \varnothing 12, \varnothing 14, \varnothing 16, \varnothing 20, \varnothing 24, \varnothing 25, \varnothing 28, \varnothing 32$



- Minimum value of related rip area $f_{R,min}$ according to EN 1992-1-1:2004+AC:2010
- Rib height of the bar shall be in the range $0,05d \leq h \leq 0,07d$
(d: Nominal diameter of the bar; h: Rip height of the bar)

Table A2: Materials

Part	Designation	Material
Reinforcing bars		
1	Rebar EN 1992-1-1:2004+AC:2010, Annex C	Bars and de-coiled rods class B or C f_{yk} and k according to NDP or NCL of EN 1992-1-1/NA $f_{uk} = f_{tk} = k \cdot f_{yk}$
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete Product description Materials reinforcing bar		
Annex A 5		

Specifications of intended use				
Anchorages subject to static and quasi-static loads:				
	for a working life of 50 years		for a working life of 100 years	
Base material	Non-cracked concrete	cracked concrete	Non-cracked concrete	cracked concrete
Hammer drilling (HD), Hammer drilling with hollow drill bit (HDB) or compressed air drilling (CD)	M8 to M30, Ø8 to Ø32, IG-M6 to IG-M20		M8 to M30, Ø8 to Ø32, IG-M6 to IG-M20	
Temperature Range:	I: - 40 °C to +40 °C ¹⁾ II: - 40 °C to +80 °C ²⁾ III: - 40 °C to +120 °C ³⁾ IV: - 40 °C to +160 °C ⁴⁾		I: - 40 °C to +40 °C ¹⁾ II: - 40 °C to +80 °C ²⁾	
Anchorages subject to seismic action:				
	for Performance Category C1		for Performance Category C2	
Base material	Cracked and non-cracked concrete			
Hammer drilling (HD), Hammer drilling with hollow drill bit (HDB) or compressed air drilling (CD)	M8 to M30, Ø8 to Ø32		M12 to M24	
Temperature Range:	I: - 40 °C to +40 °C ¹⁾ II: - 40 °C to +80 °C ²⁾ III: - 40 °C to +120 °C ³⁾ IV: - 40 °C to +160 °C ⁴⁾		I: - 40 °C to +40 °C ¹⁾ II: - 40 °C to +80 °C ²⁾ III: - 40 °C to +120 °C ³⁾ IV: - 40 °C to +160 °C ⁴⁾	
¹⁾ (max long-term temperature +24 °C and max short-term temperature +40 °C) ²⁾ (max long-term temperature +50 °C and max short-term temperature +80 °C) ³⁾ (max long-term temperature +72 °C and max short-term temperature +120 °C) ⁴⁾ (max long-term temperature +100 °C and max short-term temperature +160 °C) Base materials: • Compacted, reinforced or unreinforced normal weight concrete without fibres according to EN 206:2013 + A1:2016. • Strength classes C20/25 to C50/60 according to EN 206:2013 + A1:2016. Use conditions (Environmental conditions): • Structures subject to dry internal conditions (all materials). • For all other conditions according to EN 1993-1-4:2006+A1:2015 corresponding to corrosion resistance class: - Stainless steel Stahl A2 according to Annex A 4, Table A1: CRC II - Stainless steel Stahl A4 according to Annex A 4, Table A1: CRC III - High corrosion resistance steel HCR according to Annex A 4, Table A1: CRC V				
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete				Annex B 1
Intended Use Specifications				

Design:

- Verifiable calculation notes and drawings are prepared taking account of the loads to be anchored. The position of the anchor is indicated on the design drawings (e. g. position of the anchor relative to reinforcement or to supports, etc.).
- Anchorages are designed under the responsibility of an engineer experienced in anchorages and concrete work.
- The anchorages are designed in accordance to EN 1992-4:2018 and Technical Report TR 055, Edition February 2018

Installation:

- Dry, wet concrete or flooded bore holes (not sea-water).
- Hole drilling by hammer (HD), hollow (HDB) or compressed air drill mode (CD).
- Overhead installation allowed.
- 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-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Intended Use
Specifications

Annex B 2

Table B1: Installation parameters for threaded rod

Anchor size			M8	M10	M12	M16	M20	M24	M27	M30
Diameter of element	$d = d_{nom}$	[mm]	8	10	12	16	20	24	27	30
Nominal drill hole diameter	d_0	[mm]	10	12	14	18	22	28	30	35
Effective embedment depth	$h_{ef,min}$	[mm]	60	60	70	80	90	96	108	120
	$h_{ef,max}$	[mm]	160	200	240	320	400	480	540	600
Diameter of clearance hole in the fixture ¹⁾	Prepositioned installation $d_f \leq$	[mm]	9	12	14	18	22	26	30	33
	Push through installation d_f	[mm]	12	14	16	20	24	30	33	40
Maximum torque moment	$\max T_{inst} \leq$	[Nm]	10	20	40 ²⁾	60	100	170	250	300
Minimum thickness of member	h_{min}	[mm]	$h_{ef} + 30 \text{ mm} \geq 100 \text{ mm}$			$h_{ef} + 2d_0$				
Minimum spacing	s_{min}	[mm]	40	50	60	75	95	115	125	140
Minimum edge distance	c_{min}	[mm]	35	40	45	50	60	65	75	80

¹⁾ For application under seismic loading the diameter of clearance hole in the fixture shall be at maximum $d_1 + 1 \text{ mm}$ or alternatively the annular gap between fixture and threaded rod shall be filled force-fit with mortar.

²⁾ Maximum Torque moment for M12 with steel Grade 4.6 is 35 Nm

Table B2: Installation parameters for rebar

Rebar size			$\varnothing 8^1)$	$\varnothing 10^1)$	$\varnothing 12^1)$	$\varnothing 14$	$\varnothing 16$	$\varnothing 20$	$\varnothing 24^1)$	$\varnothing 25^1)$	$\varnothing 28$	$\varnothing 32$
Diameter of element	$d = d_{nom}$	[mm]	8	10	12	14	16	20	24	25	28	32
Nominal drill hole diameter	d_0	[mm]	10	12	14	16	18	20	25	30	32	40
Effective embedment depth	$h_{ef,min}$	[mm]	60	60	70	75	80	90	96	100	112	128
	$h_{ef,max}$	[mm]	160	200	240	280	320	400	480	500	560	640
Minimum thickness of member	h_{min}	[mm]	$h_{ef} + 30 \text{ mm} \geq 100 \text{ mm}$			$h_{ef} + 2d_0$						
Minimum spacing	s_{min}	[mm]	40	50	60	70	75	95	120	120	130	150
Minimum edge distance	c_{min}	[mm]	35	40	45	50	50	60	70	70	75	85

¹⁾ both nominal drill hole diameter can be used

Table B3: Installation parameters for Internal threaded rod

Anchor size			IG-M6	IG-M8	IG-M10	IG-M12	IG-M16	IG-M20
Internal diameter of sleeve	d_2	[mm]	6	8	10	12	16	20
Outer diameter of sleeve ¹⁾	$d = d_{nom}$	[mm]	10	12	16	20	24	30
Nominal drill hole diameter	d_0	[mm]	12	14	18	22	28	35
Effective embedment depth	$h_{ef,min}$	[mm]	60	70	80	90	96	120
	$h_{ef,max}$	[mm]	200	240	320	400	480	600
Diameter of clearance hole in the fixture	$d_f \leq$	[mm]	7	9	12	14	18	22
Maximum torque moment	$\max T_{inst} \leq$	[Nm]	10	10	20	40	60	100
Thread engagement length min/max	l_{IG}	[mm]	8/20	8/20	10/25	12/30	16/32	20/40
Minimum thickness of member	h_{min}	[mm]	$h_{ef} + 30 \text{ mm} \geq 100 \text{ mm}$			$h_{ef} + 2d_0$		
Minimum spacing	s_{min}	[mm]	50	60	75	95	115	140
Minimum edge distance	c_{min}	[mm]	40	45	50	60	65	80

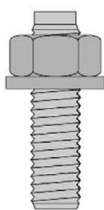
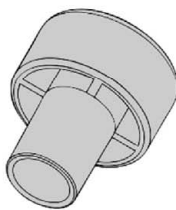
¹⁾ With metric threads according to EN 1993-1-8:2005+AC:2009

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Intended Use
Installation parameters

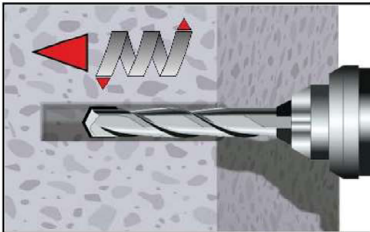
Annex B 3

Table B4: Parameter cleaning and setting tools

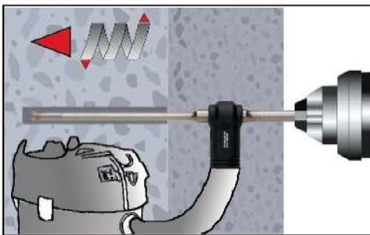
										
Threaded Rod	Rebar	Internal threaded rod	d ₀ Drill bit - Ø HD, HDB, CD	d _b Brush - Ø		d _{b,min} min. Brush - Ø	Piston plug	Installation direction and use of piston plug		
[mm]	[mm]	[mm]	[mm]	WIT-	[mm]	[mm]	WIT-			
M8	8		10	RB10	11,5	10,5	No plug required			
M10	8 / 10	IG-M6	12	RB12	13,5	12,5				
M12	10 / 12	IG-M8	14	RB14	15,5	14,5				
	12		16	RB16	17,5	16,5				
M16	14	IG-M10	18	RB18	20,0	18,5	VS18	h _{ef} > 250 mm	h _{ef} > 250 mm	all
	16		20	RB20	22,0	20,5	VS20			
M20		IG-M12	22	RB22	24,0	22,5	VS22			
	20		25	RB25	27,0	25,5	VS25			
M24		IG-M16	28	RB28	30,0	28,5	VS28			
M27	24 / 25		30	RB30	31,8	30,5	VS30			
	24 / 25		32	RB32	34,0	32,5	VS32			
M30	28	IG-M20	35	RB35	37,0	35,5	VS35			
	32		40	RB40	43,5	40,5	VS40			
 MAC - Hand pump (volume 750 ml) Drill bit diameter (d₀): 10 mm to 20 mm Drill hole depth (h₀): < 10 d_s Only in non-cracked concrete  CAC - Rec. compressed air tool (min 6 bar) Drill bit diameter (d₀): all diameters  HDB – Hollow drill bit system Drill bit diameter (d₀): all diameters The hollow drill bit system contains the Würth Extraction Drill Bit, MKT Extraction Drill Bit, Heller Duster Expert hollow-core drill and a class M vacuum with minimum negative pressure of 253 hPa <u>and</u> flow rate of minimum 150 m³/h (42 l/s).										
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete								Annex B 4		
Intended Use Cleaning and setting tools										

Installation instructions

Drilling of the bore hole



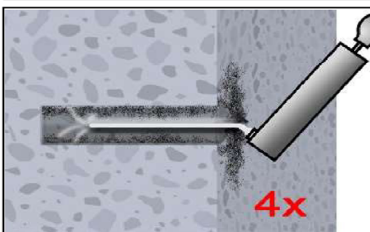
- 1a. Hammer (HD) or compressed air drilling (CD)**
Drill a hole into the base material to the size and embedment depth required by the selected anchor (Table B1, B2, or B3).
Proceed with Step 2.
In case of aborted drill hole, the drill hole shall be filled with mortar.



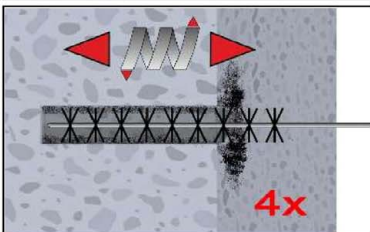
- 1b. Hollow drill bit system (HDB) (see Annex B 3)**
Drill a hole into the base material to the size and embedment depth required by the selected anchor (Table B1, B2, or B3). This drilling system removes the dust and cleans the bore hole during drilling (all conditions).
Proceed with Step 3.
In case of aborted drill hole, the drill hole shall be filled with mortar.

Attention! Standing water in the bore hole must be removed before cleaning.

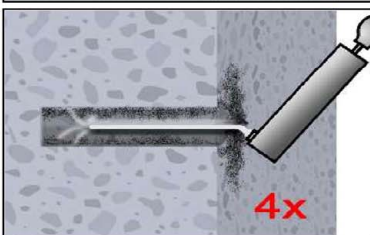
MAC: Cleaning for dry and wet bore hole with diameter $d_0 \leq 20\text{mm}$ and bore hole depth $h_0 \leq 10d_{\text{nom}}$ (uncracked concrete only!)



- 2a.** Starting from the bottom or back of the bore hole, blow the hole clean with handpump (Annex B 4) a minimum of four times until return air stream is free of noticeable dust.



- 2b.** Check brush diameter (Table B4). Brush the hole with an appropriate sized wire brush $> d_{b,\text{min}}$ (Table B4) a minimum of four times in a twisting motion.
If the bore hole ground is not reached with the brush, a brush extension must be used.



- 2c.** Finally blow the hole clean again with handpump (Annex B 4) a minimum of four times until return air stream is free of noticeable dust.

After cleaning, the bore hole has to be protected against re-contamination in an appropriate way, until dispensing the mortar in the bore hole. If necessary, the cleaning has to be repeated directly before dispensing the mortar. In-flowing water must not contaminate the bore hole again.

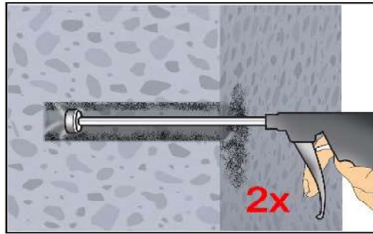
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Intended Use
Installation instructions

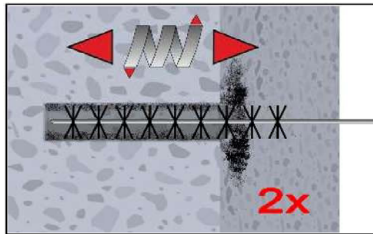
Annex B 5

Installation instructions (continuation)

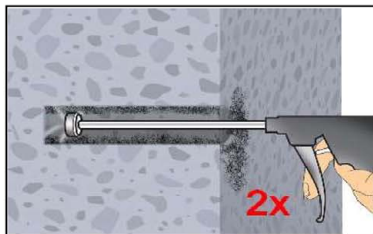
CAC: Cleaning for dry, wet and water-filled bore holes with all diameter in uncracked and cracked concrete



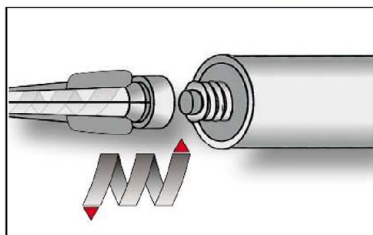
- 2a. Starting from the bottom or back of the bore hole, blow the hole clean with compressed air (min. 6 bar) (Annex B 4) a minimum of two times until return air stream is free of noticeable dust. If the bore hole ground is not reached an extension shall be used.



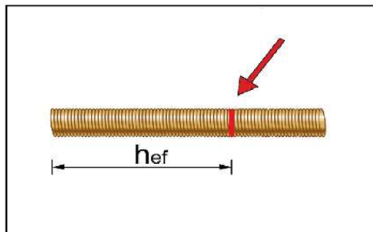
- 2b. Check brush diameter (Table B4). Brush the hole with an appropriate sized wire brush $> d_{b,min}$ (Table B5) a minimum of two times. If the bore hole ground is not reached with the brush, a brush extension shall be used (Table B5).



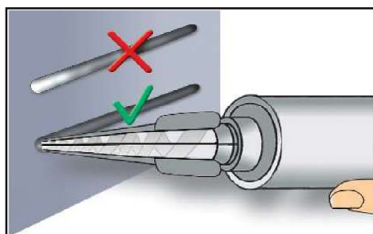
- 2c. Finally blow the hole clean again with compressed air (min. 6 bar) (Annex B 4) a minimum of two times until return air stream is free of noticeable dust. If the bore hole ground is not reached an extension shall be used.



3. Attach the supplied static-mixing nozzle to the cartridge and load the cartridge into the correct dispensing tool. For every working interruption longer than the recommended working time (Table B5) as well as for new cartridges, a new static-mixer shall be used.



4. Prior to inserting the anchor rod into the filled bore hole, the position of the embedment depth shall be marked on the anchor rods.



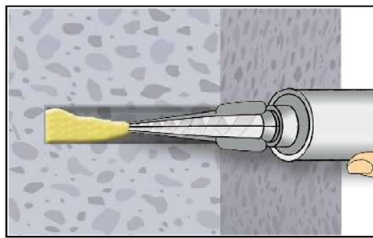
5. Prior to dispensing into the anchor hole, squeeze out separately a minimum of three full strokes and discard non-uniformly mixed adhesive components until the mortar shows a consistent grey colour.

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

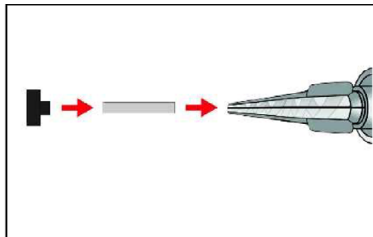
Intended Use
Installation instructions (continuation)

Annex B 6

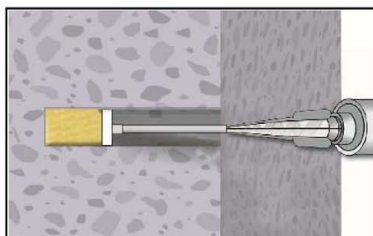
Installation instructions (continuation)



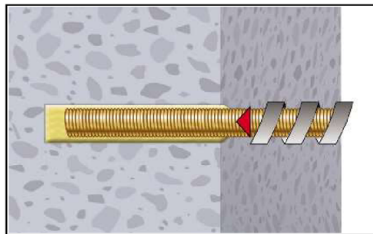
6. Starting from the bottom or back of the cleaned anchor hole, fill the hole up to approximately two-thirds with adhesive. Slowly withdraw the static mixing nozzle as the hole fills to avoid creating air pockets. If the bottom or back of the anchor hole is not reached, an appropriate extension nozzle must be used. Observe the gel-/ working times given in Table B5.



7. Piston plugs shall be used according to Table B4 for the following applications:
- Horizontal assembly (horizontal direction) and ground erection (vertical downwards direction): Drill bit-Ø $d_0 \geq 18$ mm and embedment depth $h_{ef} > 250$ mm
 - Overhead assembly (vertical upwards direction): Drill bit-Ø $d_0 \geq 18$ mm
- Assemble mixing nozzle, extension and piston plug before injecting mortar.

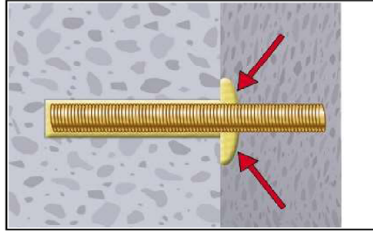


8. Insert piston plug to back of the hole and inject adhesive. If the bottom or back of the anchor hole is not reached, an appropriate extension nozzle must be used. During injection the piston plug is naturally pushed out of the borehole by the back pressure of the mortar. Observe the gel-/ working times given in Table B5.

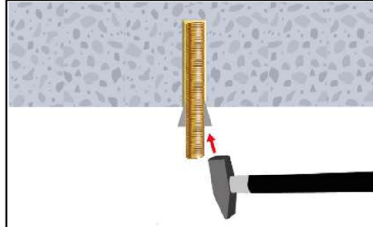


9. Push the threaded rod or reinforcing bar into the anchor hole while turning slightly to ensure positive distribution of the adhesive until the embedment mark has reached the surface level.

The anchor shall be free of dirt, grease, oil or other foreign material.



10. After inserting the anchor, the annular gap between anchor rod and concrete, in case of a push through installation additionally also the fixture, must be completely filled with mortar. If excess mortar is not visible at the top of the hole, the requirement is not fulfilled and the application has to be renewed.



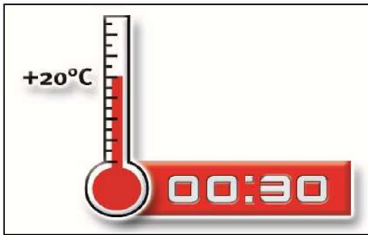
11. For overhead application the anchor rod shall be fixed (e.g. wedges) until the mortar has started to harden.

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

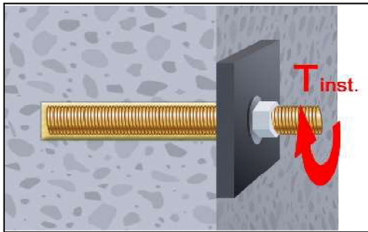
Intended Use
Installation instructions (continuation)

Annex B 7

Installation instructions (continuation)



12. Allow the adhesive to cure to the specified time prior to applying any load or torque. Do not move or load the anchor until it is fully cured (attend Table B5).



13. After full curing, the add-on part can be installed with up to the max. torque (Table B1 or B3) by using a calibrated torque wrench. In case of prepositioned installation the annular gap between anchor and fixture can be optional filled with mortar. Therefor substitute the washer by the filling washer and connect the mixer reduction nozzle to the tip of the mixer. The annular gap is filled with mortar, when mortar oozes out of the washer.

Table B5: Maximum working time and minimum curing time

Concrete temperature	Gelling working time	Minimum curing time in dry concrete	Minimum curing time in wet concrete
- 5 °C to - 1 °C	50 min	5 h	10 h
0 °C to + 4 °C	25 min	3,5 h	7 h
+ 5 °C to + 9 °C	15 min	2 h	4 h
+ 10 °C to + 14 °C	10 min	1 h	2 h
+ 15 °C to + 19 °C	6 min	40 min	80 min
+ 20 °C to + 29 °C	3 min	30 min	60 min
+ 30 °C to + 40 °C	2 min	30 min	60 min
Cartridge temperature	+5°C to +40°C		

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Intended Use

Installation instructions (continuation)
Curing time

Annex B 8

Table C1: Characteristic values for steel tension resistance and steel shear resistance of threaded rods

Size			M8	M10	M12	M16	M20	M24	M27	M30	
Cross section area		A _s	[mm²]	36,6	58	84,3	157	245	353	459	561
Characteristic tension resistance, Steel failure ¹⁾											
Steel, Property class 4.6 and 4.8		N _{Rk,s}	[kN]	15 (13)	23 (21)	34	63	98	141	184	224
Steel, Property class 5.6 and 5.8		N _{Rk,s}	[kN]	18 (17)	29 (27)	42	78	122	176	230	280
Steel, Property class 8.8		N _{Rk,s}	[kN]	29 (27)	46 (43)	67	125	196	282	368	449
Stainless steel A2, A4 and HCR, class 50		N _{Rk,s}	[kN]	18	29	42	79	123	177	230	281
Stainless steel A2, A4 and HCR, class 70		N _{Rk,s}	[kN]	26	41	59	110	171	247	₃)	₃)
Stainless steel A4 and HCR, class 80		N _{Rk,s}	[kN]	29	46	67	126	196	282	₃)	₃)
Characteristic tension resistance, Partial factor ²⁾											
Steel, Property class 4.6 and 5.6		γ _{Ms,N}	[-]	2,0							
Steel, Property class 4.8, 5.8 and 8.8		γ _{Ms,N}	[-]	1,5							
Stainless steel A2, A4 and HCR, class 50		γ _{Ms,N}	[-]	2,86							
Stainless steel A2, A4 and HCR, class 70		γ _{Ms,N}	[-]	1,87							
Stainless steel A4 and HCR, class 80		γ _{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]	9 (8)	14 (13)	20	38	59	85	110	135
	Steel, Property class 5.6 and 5.8	V ⁰ _{Rk,s}	[kN]	11 (10)	17 (16)	25	47	74	106	138	168
	Steel, Property class 8.8	V ⁰ _{Rk,s}	[kN]	15 (13)	23 (21)	34	63	98	141	184	224
	Stainless steel A2, A4 and HCR, class 50	V ⁰ _{Rk,s}	[kN]	9	15	21	39	61	88	115	140
	Stainless steel A2, A4 and HCR, class 70	V ⁰ _{Rk,s}	[kN]	13	20	30	55	86	124	₃)	₃)
	Stainless steel A4 and HCR, class 80	V ⁰ _{Rk,s}	[kN]	15	23	34	63	98	141	₃)	₃)
With lever arm	Steel, Property class 4.6 and 4.8	M ⁰ _{Rk,s}	[Nm]	15 (13)	30 (27)	52	133	260	449	666	900
	Steel, Property class 5.6 and 5.8	M ⁰ _{Rk,s}	[Nm]	19 (16)	37 (33)	65	166	324	560	833	1123
	Steel, Property class 8.8	M ⁰ _{Rk,s}	[Nm]	30 (26)	60 (53)	105	266	519	896	1333	1797
	Stainless steel A2, A4 and HCR, class 50	M ⁰ _{Rk,s}	[Nm]	19	37	66	167	325	561	832	1125
	Stainless steel A2, A4 and HCR, class 70	M ⁰ _{Rk,s}	[Nm]	26	52	92	232	454	784	₃)	₃)
	Stainless steel A4 and HCR, class 80	M ⁰ _{Rk,s}	[Nm]	30	59	105	266	519	896	₃)	₃)
Characteristic shear resistance, Partial factor ²⁾											
Steel, Property class 4.6 and 5.6		γ _{Ms,V}	[-]	1,67							
Steel, Property class 4.8, 5.8 and 8.8		γ _{Ms,V}	[-]	1,25							
Stainless steel A2, A4 and HCR, class 50		γ _{Ms,V}	[-]	2,38							
Stainless steel A2, A4 and HCR, class 70		γ _{Ms,V}	[-]	1,56							
Stainless steel A4 and HCR, class 80		γ _{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 ³⁾ Anchor type not part of the ETA											
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete								Annex C 1			
Performances Characteristic values for steel tension resistance and steel shear resistance of threaded rods											

Table C2: Characteristic values for Concrete cone failure and Splitting with all kind of action

Anchor size			All Anchor types and sizes	
Concrete cone failure				
Non-cracked concrete		$k_{ucr,N}$	[-]	11,0
Cracked concrete		$k_{cr,N}$	[-]	7,7
Edge distance		$c_{cr,N}$	[mm]	1,5 h_{ef}
Axial distance		$s_{cr,N}$	[mm]	2 $c_{cr,N}$
Splitting				
Edge distance	$h/h_{ef} \geq 2,0$	$c_{cr,sp}$	[mm]	1,0 h_{ef}
	$2,0 > h/h_{ef} > 1,3$			$2 \cdot h_{ef} \left(2,5 - \frac{h}{h_{ef}} \right)$
	$h/h_{ef} \leq 1,3$			2,4 h_{ef}
Axial distance		$s_{cr,sp}$	[mm]	2 $c_{cr,sp}$

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Performances

Characteristic values for Concrete cone failure and Splitting with all kind of action

Annex C 2

Table C3: Characteristic values of tension loads under static and quasi-static action for a working life of 50 years

Anchor size threaded rod					M8	M10	M12	M16	M20	M24	M27	M30
Steel failure												
Characteristic tension resistance			N _{Rk,s}	[kN]	A _s · f _{uk} (or see Table C1)							
Partial factor			γ _{Ms,N}	[-]	see Table C1							
Combined pull-out and concrete failure												
Characteristic bond resistance in non-cracked concrete C20/25												
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,ucr}	[N/mm²]	17	17	16	15	14	13	13	13
	II: 80°C/50°C		τ _{Rk,ucr}	[N/mm²]	17	17	16	15	14	13	13	13
	III: 120°C/72°C		τ _{Rk,ucr}	[N/mm²]	15	14	14	13	12	12	11	11
	IV: 160°C/100°C		τ _{Rk,ucr}	[N/mm²]	12	11	11	10	9,5	9,0	9,0	9,0
Characteristic bond resistance in cracked concrete C20/25												
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,cr}	[N/mm²]	7,0	7,5	8,0	9,0	8,5	7,0	7,0	7,0
	II: 80°C/50°C		τ _{Rk,cr}	[N/mm²]	7,0	7,5	8,0	9,0	8,5	7,0	7,0	7,0
	III: 120°C/72°C		τ _{Rk,cr}	[N/mm²]	6,0	6,5	7,0	7,5	7,0	6,0	6,0	6,0
	IV: 160°C/100°C		τ _{Rk,cr}	[N/mm²]	5,5	5,5	6,0	6,5	6,0	5,5	5,5	5,5
Reduktion factor ψ ⁰ _{sus} in cracked and non-cracked concrete C20/25												
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	ψ ⁰ _{sus}	[-]	0,90							
	II: 80°C/50°C				0,87							
	III: 120°C/72°C				0,75							
	IV: 160°C/100°C				0,66							
Increasing factors for concrete ψ _c			C25/30		1,02							
			C30/37		1,04							
			C35/45		1,07							
			C40/50		1,08							
			C45/55		1,09							
			C50/60		1,10							
Concrete cone failure												
Relevant parameter					see Table C2							
Splitting												
Relevant parameter					see Table C2							
Installation factor												
for dry and wet concrete	MAC	γ _{inst}	[-]	1,2					No Performance assessed			
	CAC			1,0								
	HDB			1,2								
for flooded bore hole	CAC			1,4								
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete									Annex C 3			
Performances Characteristic values of tension loads under static and quasi-static action												

Table C4: Characteristic values of tension loads under static and quasi-static action for a working life of 100 years

Anchor size threaded rod				M8	M10	M12	M16	M20	M24	M27	M30	
Steel failure												
Characteristic tension resistance		$N_{Rk,s}$	[kN]	$A_s \cdot f_{uk}$ (or see Table C1)								
Partial factor		$\gamma_{Ms,N}$	[-]	see Table C1								
Combined pull-out and concrete failure												
Characteristic bond resistance in non-cracked concrete C20/25												
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	$\tau_{Rk,ucr,100}$	[N/mm²]	17	17	16	15	14	13	13	13
	II: 80°C/50°C		$\tau_{Rk,ucr,100}$	[N/mm²]	17	17	16	15	14	13	13	13
Characteristic bond resistance in cracked concrete C20/25												
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	$\tau_{Rk,cr,100}$	[N/mm²]	5,5	6,0	6,5	6,5	6,5	6,5	6,5	6,5
	II: 80°C/50°C		$\tau_{Rk,cr,100}$	[N/mm²]	5,5	6,0	6,5	6,5	6,5	6,5	6,5	6,5
Increasing factors for concrete ψ_c			C25/30		1,02							
			C30/37		1,04							
			C35/45		1,07							
			C40/50		1,08							
			C45/55		1,09							
			C50/60		1,10							
Concrete cone failure												
Relevant parameter				see Table C2								
Splitting												
Relevant parameter				see Table C2								
Installation factor												
for dry and wet concrete	MAC	γ_{inst}	[-]	1,2					No Performance assessed			
	CAC			1,0								
	HDB			1,2								
for flooded bore hole	CAC			1,4								

Table C5: Characteristic values of shear loads under static and quasi-static action										
Anchor size threaded rod			M8	M10	M12	M16	M20	M24	M27	M30
Steel failure without lever arm										
Characteristic shear resistance Steel, strength class 4.6, 4.8 and 5.6, 5.8	$V_{Rk,s}^0$	[kN]	0,6 · A _s · f _{uk} (or see Table C1)							
Characteristic shear resistance Steel, strength class 8.8 Stainless Steel A2, A4 and HCR, all strength classes	$V_{Rk,s}^0$	[kN]	0,5 · A _s · f _{uk} (or see Table C1)							
Partial factor	γ _{Ms,V}	[-]	see Table C1							
Ductility factor	k ₇	[-]	1,0							
Steel failure with lever arm										
Characteristic bending moment	$M_{Rk,s}^0$	[Nm]	1,2 · W _{el} · f _{uk} (or see Table C1)							
Elastic section modulus	W _{el}	[mm ³]	31	62	109	277	541	935	1387	1874
Partial factor	γ _{Ms,V}	[-]	see Table C1							
Concrete pry-out failure										
Factor	k ₈	[-]	2,0							
Installation factor	γ _{inst}	[-]	1,0							
Concrete edge failure										
Effective length of fastener	l _f	[mm]	min(h _{ef} ; 12 · d _{nom})						min(h _{ef} ; 300mm)	
Outside diameter of fastener	d _{nom}	[mm]	8	10	12	16	20	24	27	30
Installation factor	γ _{inst}	[-]	1,0							
</										

Table C6: Characteristic values of tension loads under static and quasi-static action for a working life of 50 years

Anchor size internal threaded anchor rods				IG-M6	IG-M8	IG-M10	IG-M12	IG-M16	IG-M20	
Steel failure ¹⁾										
Characteristic tension resistance,		5.8	N _{Rk,s}	[kN]	10	17	29	42	76	123
Steel, strength class		8.8	N _{Rk,s}	[kN]	16	27	46	67	121	196
Partial factor, strength class 5.8 and 8.8			γ _{Ms,N}	[-]	1,5					
Characteristic tension resistance, Stainless Steel A4 and HCR, Strength class 70 ²⁾			N _{Rk,s}	[kN]	14	26	41	59	110	124
Partial factor			γ _{Ms,N}	[-]	1,87					2,86
Combined pull-out and concrete cone failure										
Characteristic bond resistance in non-cracked concrete C20/25										
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,ucr}	[N/mm²]	17	16	15	14	13	13
	II: 80°C/50°C		τ _{Rk,ucr}	[N/mm²]	17	16	15	14	13	13
	III: 120°C/72°C		τ _{Rk,ucr}	[N/mm²]	14	14	13	12	12	11
	IV: 160°C/100°C		τ _{Rk,ucr}	[N/mm²]	11	11	10	9,5	9,0	9,0
Characteristic bond resistance in cracked concrete C20/25										
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,cr}	[N/mm²]	7,5	8,0	9,0	8,5	7,0	7,0
	II: 80°C/50°C		τ _{Rk,cr}	[N/mm²]	7,5	8,0	9,0	8,5	7,0	7,0
	III: 120°C/72°C		τ _{Rk,cr}	[N/mm²]	6,5	7,0	7,5	7,0	6,0	6,0
	IV: 160°C/100°C		τ _{Rk,cr}	[N/mm²]	5,5	6,0	6,5	6,0	5,5	5,5
Reduktion factor ψ ⁰ _{sus} in cracked and non-cracked concrete C20/25										
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	ψ ⁰ _{sus}	[-]	0,90					
	0,87									
	0,75									
	0,66									
Increasing factors for concrete ψ _c			C25/30		1,02					
			C30/37		1,04					
			C35/45		1,07					
			C40/50		1,08					
			C45/55		1,09					
			C50/60		1,10					
Concrete cone failure										
Relevant parameter					see Table C2					
Splitting failure										
Relevant parameter					see Table C2					
Installation factor										
for dry and wet concrete	MAC	γ _{inst}	[-]	1,2			No Performance assessed			
	CAC			1,0						
	HDB			1,2						
for flooded bore hole	CAC			1,4						
¹⁾ Fastenings (incl. nut and washer) must comply with the appropriate material and property class of the internal threaded rod. The characteristic tension resistance for steel failure is valid for the internal threaded rod and the fastening element. ²⁾ For IG-M20 strength class 50 is valid										
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete								Annex C 6		
Performances Characteristic values of tension loads under static and quasi-static action										

Table C7: Characteristic values of tension loads under static and quasi-static action for a working life of 100 years

Anchor size internal threaded anchor rods				IG-M6	IG-M8	IG-M10	IG-M12	IG-M16	IG-M20
Steel failure ¹⁾									
Characteristic tension resistance,	5.8	N _{Rk,s}	[kN]	10	17	29	42	76	123
Steel, strength class	8.8	N _{Rk,s}	[kN]	16	27	46	67	121	196
Partial factor, strength class 5.8 and 8.8		γ _{Ms,N}	[-]	1,5					
Characteristic tension resistance, Stainless Steel A4 and HCR, Strength class 70 ²⁾		N _{Rk,s}	[kN]	14	26	41	59	110	124
Partial factor		γ _{Ms,N}	[-]	1,87					2,86
Combined pull-out and concrete cone failure									
Characteristic bond resistance in non-cracked concrete C20/25									
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,ucr,100}	[N/mm²]	17	16	15	14	13
	II: 80°C/50°C		τ _{Rk,ucr,100}	[N/mm²]	17	16	15	14	13
Characteristic bond resistance in cracked concrete C20/25									
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,cr,100}	[N/mm²]	6,0	6,5	6,5	6,5	6,5
	II: 80°C/50°C		τ _{Rk,cr,100}	[N/mm²]	6,0	6,5	6,5	6,5	6,5
Increasing factors for concrete ψ _c			C25/30		1,02				
			C30/37		1,04				
			C35/45		1,07				
			C40/50		1,08				
			C45/55		1,09				
			C50/60		1,10				
Concrete cone failure									
Relevant parameter				see Table C2					
Splitting failure									
Relevant parameter				see Table C2					
Installation factor									
for dry and wet concrete	MAC	γ _{inst}	[-]	1,2			No Performance assessed		
	CAC			1,0					
	HDB			1,2					
for flooded bore hole	CAC			1,4					
¹⁾ Fastenings (incl. nut and washer) must comply with the appropriate material and property class of the internal threaded rod. The characteristic tension resistance for steel failure is valid for the internal threaded rod and the fastening element. ²⁾ For IG-M20 strength class 50 is valid									
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete							Annex C 7		
Performances Characteristic values of tension loads under static and quasi-static action									

Table C8: Characteristic values of shear loads under static and quasi-static action

Anchor size for internal threaded anchor rods				IG-M6	IG-M8	IG-M10	IG-M12	IG-M16	IG-M20
Steel failure without lever arm ¹⁾									
Characteristic shear resistance, Steel, strength class	5.8	$V^0_{RK,s}$	[kN]	5	9	15	21	38	61
	8.8	$V^0_{RK,s}$	[kN]	8	14	23	34	60	98
Partial factor, strength class 5.8 and 8.8		$\gamma_{Ms,V}$	[-]	1,25					
Characteristic shear resistance, Stainless Steel A4 and HCR, Strength class 70 ²⁾		$V^0_{RK,s}$	[kN]	7	13	20	30	55	40
Partial factor		$\gamma_{Ms,V}$	[-]	1,56					2,38
Ductility factor		k_7	[-]	1,0					
Steel failure with lever arm ¹⁾									
Characteristic bending moment, Steel, strength class	5.8	$M^0_{RK,s}$	[Nm]	8	19	37	66	167	325
	8.8	$M^0_{RK,s}$	[Nm]	12	30	60	105	267	519
Partial factor, strength class 5.8 and 8.8		$\gamma_{Ms,V}$	[-]	1,25					
Characteristic bending moment, Stainless Steel A4 and HCR, Strength class 70 ²⁾		$M^0_{RK,s}$	[Nm]	11	26	52	92	233	456
Partial factor		$\gamma_{Ms,V}$	[-]	1,56					2,38
Concrete pry-out failure									
Factor		k_8	[-]	2,0					
Installation factor		γ_{inst}	[-]	1,0					
Concrete edge failure									
Effective length of fastener		l_f	[mm]	$\min(h_{ef}; 12 \cdot d_{nom})$					$\min(h_{ef}; 300\text{mm})$
Outside diameter of fastener		d_{nom}	[mm]	10	12	16	20	24	30
Installation factor		γ_{inst}	[-]	1,0					
¹⁾ Fastenings (incl. nut and washer) must comply with the appropriate material and property class of the internal threaded rod. The characteristic tension resistance for steel failure is valid for the internal threaded rod and the fastening element. ²⁾ For IG-M20 strength class 50 is valid									
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete								Annex C 8	
Performances Characteristic values of shear loads under static and quasi-static action									

Table C9: Characteristic values of tension loads under static and quasi-static action for a working life of 50 years														
Anchor size reinforcing bar				Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 24	Ø 25	Ø 28	Ø 32	
Steel failure														
Characteristic tension resistance		N _{Rk,s}	[kN]	A _s · f _{uk} ¹⁾										
Cross section area		A _s	[mm²]	50	79	113	154	201	314	452	491	616	804	
Partial factor		γ _{Ms,N}	[-]	1,4 ²⁾										
Combined pull-out and concrete failure														
Characteristic bond resistance in non-cracked concrete C20/25														
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,ucr}	[N/mm²]	14	14	14	14	13	13	13	13	13	13
	II: 80°C/50°C		τ _{Rk,ucr}	[N/mm²]	14	14	14	14	13	13	13	13	13	13
	III: 120°C/72°C		τ _{Rk,ucr}	[N/mm²]	13	12	12	12	12	11	11	11	11	11
	IV: 160°C/100°C		τ _{Rk,ucr}	[N/mm²]	9,5	9,5	9,5	9,0	9,0	9,0	9,0	9,0	8,5	8,5
Characteristic bond resistance in cracked concrete C20/25														
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,cr}	[N/mm²]	5,5	5,5	6,0	6,5	6,5	6,5	6,5	7,0	7,0	7,0
	II: 80°C/50°C		τ _{Rk,cr}	[N/mm²]	5,5	5,5	6,0	6,5	6,5	6,5	6,5	7,0	7,0	7,0
	III: 120°C/72°C		τ _{Rk,cr}	[N/mm²]	4,5	5,0	5,0	5,5	5,5	5,5	5,5	6,0	6,0	6,0
	IV: 160°C/100°C		τ _{Rk,cr}	[N/mm²]	4,0	4,5	4,5	5,0	5,0	5,0	5,0	5,0	5,0	5,0
Reduktion factor ψ ⁰ _{sus} in cracked and non-cracked concrete C20/25														
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	ψ ⁰ _{sus}	[-]	0,90									
	II: 80°C/50°C				0,87									
	III: 120°C/72°C				0,75									
	IV: 160°C/100°C				0,66									
Increasing factors for concrete ψ _c			C25/30		1,02									
			C30/37		1,04									
			C35/45		1,07									
			C40/50		1,08									
			C45/55		1,09									
			C50/60		1,10									
Concrete cone failure														
Relevant parameter				see Table C2										
Splitting														
Relevant parameter				see Table C2										
Installation factor														
for dry and wet concrete	MAC	γ _{inst}	[-]	1,2					No Performance assessed					
	CAC			1,0										
	HDB			1,2										
for flooded bore hole		CAC			1,4									
¹⁾ f _{uk} shall be taken from the specifications of reinforcing bars ²⁾ in absence of national regulation														
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete										Annex C 9				
Performances Characteristic values of tension loads under static and quasi-static action														

Table C10: Characteristic values of tension loads under static and quasi-static action for a working life of 100 years

Anchor size reinforcing bar				Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 24	Ø 25	Ø 28	Ø 32
Steel failure													
Characteristic tension resistance		N _{Rk,s}	[kN]	A _s · f _{uk} ¹⁾									
Cross section area		A _s	[mm²]	50	79	113	154	201	314	452	491	616	804
Partial factor		γ _{Ms,N}	[-]	1,4 ²⁾									
Combined pull-out and concrete failure													
Characteristic bond resistance in non-cracked concrete C20/25													
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,ucr,100}	[N/mm²]	14	14	14	14	13	13	13	13	13
	II: 80°C/50°C		τ _{Rk,ucr,100}	[N/mm²]	14	14	14	14	13	13	13	13	13
Characteristic bond resistance in cracked concrete C20/25													
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,cr,100}	[N/mm²]	4,5	4,5	4,5	4,5	4,5	4,0	4,0	4,0	4,0
	II: 80°C/50°C		τ _{Rk,cr,100}	[N/mm²]	4,5	4,5	4,5	4,5	4,5	4,0	4,0	4,0	4,0
Increasing factors for concrete ψ _c		C25/30		1,02									
		C30/37		1,04									
		C35/45		1,07									
		C40/50		1,08									
		C45/55		1,09									
		C50/60		1,10									
Concrete cone failure													
Relevant parameter				see Table C2									
Splitting													
Relevant parameter				see Table C2									
Installation factor													
for dry and wet concrete	MAC	γ _{inst}	[-]	1,2					No Performance assessed				
	CAC			1,0									
	HDB			1,2									
for flooded bore hole	CAC			1,4									
¹⁾ f _{uk} shall be taken from the specifications of reinforcing bars ²⁾ in absence of national regulation													
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete										Annex C 10			
Performances Characteristic values of tension loads under static and quasi-static action													

Table C11: Characteristic values of shear loads under static and quasi-static action

Anchor size reinforcing bar			Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 24	Ø 25	Ø 28	Ø 32
Steel failure without lever arm												
Characteristic shear resistance	$V_{Rk,s}^0$	[kN]	$0,50 \cdot A_s \cdot f_{uk}^{1)}$									
Cross section area	A_s	[mm²]	50	79	113	154	201	314	452	491	616	804
Partial factor	$\gamma_{Ms,V}$	[-]	1,5 ²⁾									
Ductility factor	k_7	[-]	1,0									
Steel failure with lever arm												
Characteristic bending moment	$M_{Rk,s}^0$	[Nm]	$1.2 \cdot W_{el} \cdot f_{uk}^{1)}$									
Elastic section modulus	W_{el}	[mm³]	50	98	170	269	402	785	1357	1534	2155	3217
Partial factor	$\gamma_{Ms,V}$	[-]	1,5 ²⁾									
Concrete pry-out failure												
Factor	k_8	[-]	2,0									
Installation factor	γ_{inst}	[-]	1,0									
Concrete edge failure												
Effective length of fastener	l_f	[mm]	$\min(h_{ef}; 12 \cdot d_{nom})$							$\min(h_{ef}; 300\text{mm})$		
Outside diameter of fastener	d_{nom}	[mm]	8	10	12	14	16	20	24	25	28	32
Installation factor	γ_{inst}	[-]	1,0									
¹⁾ f_{uk} shall be taken from the specifications of reinforcing bars ²⁾ in absence of national regulation												
Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete									Annex C 11			
Performances Characteristic values of shear loads under static and quasi-static action												

Table C12: Displacements under tension load¹⁾ (threaded rod)

Anchor size threaded rod			M8	M10	M12	M16	M20	M24	M27	M30
Non-cracked concrete C20/25 under static and quasi-static action for a working life of 50 and 100 years										
Temperature range I: 40°C/24°C II: 80°C/50°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,031	0,032	0,034	0,037	0,039	0,042	0,044	0,046
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,040	0,042	0,044	0,047	0,051	0,054	0,057	0,060
Temperature range III: 120°C/72°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,032	0,034	0,035	0,038	0,041	0,044	0,046	0,048
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,042	0,044	0,045	0,049	0,053	0,056	0,059	0,062
Temperature range IV: 160°C/100°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,121	0,126	0,131	0,142	0,153	0,163	0,171	0,179
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,124	0,129	0,135	0,146	0,157	0,168	0,176	0,184
Cracked concrete under static and quasi-static action for a working life of 50 and 100 years										
Temperature range I: 40°C/24°C II: 80°C/50°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,081	0,083	0,085	0,090	0,095	0,099	0,103	0,106
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,104	0,107	0,110	0,116	0,122	0,128	0,133	0,137
Temperature range III: 120°C/72°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,084	0,086	0,088	0,093	0,098	0,103	0,107	0,110
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,108	0,111	0,114	0,121	0,127	0,133	0,138	0,143
Temperature range IV: 160°C/100°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,312	0,321	0,330	0,349	0,367	0,385	0,399	0,412
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,321	0,330	0,340	0,358	0,377	0,396	0,410	0,424

¹⁾ Calculation of the displacement

$$\delta_{N0} = \delta_{N0}\text{-factor} \cdot \tau; \quad \tau: \text{action bond stress for tension}$$

$$\delta_{N\infty} = \delta_{N\infty}\text{-factor} \cdot \tau;$$

Table C13: Displacements under shear load²⁾ (threaded rod)

Anchor size threaded rod			M8	M10	M12	M16	M20	M24	M27	M30
Non-cracked and cracked concrete under static and quasi-static action										
All temperature ranges	δ_{V0} -factor	[mm/kN]	0,06	0,06	0,05	0,04	0,04	0,03	0,03	0,03
	$\delta_{V\infty}$ -factor	[mm/kN]	0,09	0,08	0,08	0,06	0,06	0,05	0,05	0,05

²⁾ Calculation of the displacement

$$\delta_{V0} = \delta_{V0}\text{-factor} \cdot V; \quad V: \text{action shear load}$$

$$\delta_{V\infty} = \delta_{V\infty}\text{-factor} \cdot V;$$

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Performances

Displacements under static and quasi-static action (threaded rods)

Annex C 12

Table C14: Displacements under tension load¹⁾ (Internal threaded rod)

Anchor size Internal threaded rod			IG-M6	IG-M8	IG-M10	IG-M12	IG-M16	IG-M20
Non-cracked concrete under static and quasi-static action for a working life of 50 and 100 years								
Temperature range I: 40°C/24°C II: 80°C/50°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,032	0,034	0,037	0,039	0,042	0,046
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,042	0,044	0,047	0,051	0,054	0,060
Temperature range III: 120°C/72°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,034	0,035	0,038	0,041	0,044	0,048
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,044	0,045	0,049	0,053	0,056	0,062
Temperature range IV: 160°C/100°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,126	0,131	0,142	0,153	0,163	0,179
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,129	0,135	0,146	0,157	0,168	0,184
Cracked concrete under static and quasi-static action for a working life of 50 and 100 years								
Temperature range I: 40°C/24°C II: 80°C/50°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,083	0,085	0,090	0,095	0,099	0,106
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,170	0,110	0,116	0,122	0,128	0,137
Temperature range III: 120°C/72°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,086	0,088	0,093	0,098	0,103	0,110
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,111	0,114	0,121	0,127	0,133	0,143
Temperature range IV: 160°C/100°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,321	0,330	0,349	0,367	0,385	0,412
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,330	0,340	0,358	0,377	0,396	0,424

¹⁾ Calculation of the displacement

$$\delta_{N0} = \delta_{N0}\text{-factor} \cdot \tau;$$

τ : action bond stress for tension

$$\delta_{N\infty} = \delta_{N\infty}\text{-factor} \cdot \tau;$$

Table C15: Displacements under shear load²⁾ (Internal threaded rod)

Anchor size Internal threaded rod			IG-M6	IG-M8	IG-M10	IG-M12	IG-M16	IG-M20
Non-cracked and cracked concrete under static and quasi-static action								
All temperature ranges	δ_{V0} -factor	[mm/kN]	0,07	0,06	0,06	0,05	0,04	0,04
	$\delta_{V\infty}$ -factor	[mm/kN]	0,10	0,09	0,08	0,08	0,06	0,06

²⁾ Calculation of the displacement

$$\delta_{V0} = \delta_{V0}\text{-factor} \cdot V;$$

V : action shear load

$$\delta_{V\infty} = \delta_{V\infty}\text{-factor} \cdot V;$$

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Performances

Displacements under static and quasi-static action (Internal threaded anchor rod)

Annex C 13

Table C16: Displacements under tension load¹⁾ (rebar)

Anchor size reinforcing bar			Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 24	Ø 25	Ø 28	Ø 32
Non-cracked concrete under static and quasi-static action for a working life of 50 and 100 years												
Temperature range I: 40°C/24°C II: 80°C/50°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,031	0,032	0,034	0,035	0,037	0,039	0,042	0,043	0,045	0,048
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,040	0,042	0,044	0,045	0,047	0,051	0,054	0,055	0,058	0,063
Temperature range III: 120°C/72°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,032	0,034	0,035	0,036	0,038	0,041	0,044	0,045	0,047	0,050
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,042	0,044	0,045	0,047	0,049	0,053	0,056	0,057	0,060	0,065
Temperature range IV: 160°C/100°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,121	0,126	0,131	0,137	0,142	0,153	0,163	0,164	0,172	0,186
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,124	0,129	0,135	0,141	0,146	0,157	0,168	0,169	0,177	0,192
Cracked concrete under static and quasi-static action for a working life of 50 and 100 years												
Temperature range I: 40°C/24°C II: 80°C/50°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,081	0,083	0,085	0,087	0,090	0,095	0,099	0,099	0,103	0,108
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,104	0,107	0,110	0,113	0,116	0,122	0,128	0,128	0,133	0,141
Temperature range III: 120°C/72°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,084	0,086	0,088	0,090	0,093	0,098	0,103	0,103	0,107	0,113
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,108	0,111	0,114	0,118	0,121	0,127	0,133	0,133	0,138	0,148
Temperature range IV: 160°C/100°C	δ_{N0} -factor	[mm/(N/mm ²)]	0,312	0,321	0,330	0,340	0,349	0,367	0,385	0,385	0,399	0,425
	$\delta_{N\infty}$ -factor	[mm/(N/mm ²)]	0,321	0,330	0,340	0,349	0,358	0,377	0,396	0,396	0,410	0,449

¹⁾ Calculation of the displacement

$$\delta_{N0} = \delta_{N0}\text{-factor} \cdot \tau; \quad \tau: \text{action bond stress for tension}$$

$$\delta_{N\infty} = \delta_{N\infty}\text{-factor} \cdot \tau;$$

Table C17: Displacements under shear load²⁾ (rebar)

Anchor size reinforcing bar			Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 24	Ø 25	Ø 28	Ø 32
Non-cracked and cracked concrete under static and quasi-static action												
All temperature ranges	δ_{V0} -factor	[mm/kN]	0,06	0,05	0,05	0,04	0,04	0,04	0,03	0,03	0,03	0,03
	$\delta_{V\infty}$ -factor	[mm/kN]	0,09	0,08	0,08	0,06	0,06	0,05	0,05	0,05	0,04	0,04

²⁾ Calculation of the displacement

$$\delta_{V0} = \delta_{V0}\text{-factor} \cdot V; \quad V: \text{action shear load}$$

$$\delta_{V\infty} = \delta_{V\infty}\text{-factor} \cdot V;$$

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Performances

Displacements under static and quasi-static action (rebar)

Annex C 14

**Table C18: Characteristic values of tension loads under seismic action
(performance category C1) for a working life of 50 and 100 years**

Anchor size threaded rod					M8	M10	M12	M16	M20	M24	M27	M30
Steel failure												
Characteristic tension resistance			$N_{Rk,s,eq,C1}$	[kN]	$1,0 \cdot N_{Rk,s}$							
Partial factor			$\gamma_{Ms,N}$	[-]	see Table C1							
Combined pull-out and concrete failure												
Characteristic bond resistance in cracked and non-cracked concrete C20/25												
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	$\tau_{Rk,eq,C1}$	[N/mm²]	7,0	7,5	8,0	9,0	8,5	7,0	7,0	7,0
	II: 80°C/50°C		$\tau_{Rk,eq,C1}$	[N/mm²]	7,0	7,5	8,0	9,0	8,5	7,0	7,0	7,0
	III: 120°C/72°C		$\tau_{Rk,eq,C1}$	[N/mm²]	6,0	6,5	7,0	7,5	7,0	6,0	6,0	6,0
	IV: 160°C/100°C		$\tau_{Rk,eq,C1}$	[N/mm²]	5,5	5,5	6,0	6,5	6,0	5,5	5,5	5,5
Increasing factors for concrete ψ_C			C25/30 to C50/60		1,0							
Installation factor												
for dry and wet concrete	CAC	γ_{inst}	[-]	1,0								
	HDB			1,2								
for flooded bore hole	CAC			1,4								

**Table C19: Characteristic values of shear loads under seismic action
(performance category C1)**

Anchor size threaded rod			M8	M10	M12	M16	M20	M24	M27	M30
Steel failure										
Characteristic shear resistance (Seismic C1)	$V_{Rk,s,eq,C1}$	[kN]	$0,70 \cdot V_{Rk,s}^0$							
Partial factor	$\gamma_{Ms,V}$	[-]	see Table C1							
Factor for annular gap	α_{gap}	[-]	0,5 (1,0) ¹⁾							

¹⁾ Value in brackets valid for filled annular gap between anchor and clearance hole in the fixture. Use of special filling washer Annex A 3 is recommended

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Performances

Characteristic values of tension and shear loads under seismic action (performance category C1) for a working life of 50 and 100 years (threaded rod)

Annex C 15

**Table C20: Characteristic values of tension loads under seismic action
(performance category C1) for a working life of 50 and 100 years**

Anchor size reinforcing bar				Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 24	Ø 25	Ø 28	Ø 32	
Steel failure														
Characteristic tension resistance		N _{Rk,s,eq,C1}	[kN]	1,0 · A _s · f _{uk} ¹⁾										
Cross section area		A _s	[mm²]	50	79	113	154	201	314	452	491	616	804	
Partial factor		γ _{Ms,N}	[-]	1,4 ²⁾										
Combined pull-out and concrete failure														
Characteristic bond resistance in cracked and non-cracked concrete C20/25														
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,eq,C1}	[N/mm²]	5,5	5,5	6,0	6,5	6,5	6,5	6,5	7,0	7,0	7,0
	II: 80°C/50°C		τ _{Rk,eq,C1}	[N/mm²]	5,5	5,5	6,0	6,5	6,5	6,5	6,5	7,0	7,0	7,0
	III: 120°C/72°C		τ _{Rk,eq,C1}	[N/mm²]	4,5	5,0	5,0	5,5	5,5	5,5	5,5	6,0	6,0	6,0
	IV: 160°C/100°C		τ _{Rk,eq,C1}	[N/mm²]	4,0	4,5	4,5	5,0	5,0	5,0	5,0	5,0	5,0	5,0
Increasing factors for concrete ψ _C		C25/30 to C50/60		1,0										
Installation factor														
for dry and wet concrete		CAC	γ _{inst}	[-]	1,0									
		HDB			1,2									
for flooded bore hole		CAC			1,4									

¹⁾ f_{uk} shall be taken from the specifications of reinforcing bars

²⁾ in absence of national regulation

**Table C21: Characteristic values of shear loads under seismic action
(performance category C1)**

Anchor size reinforcing bar			Ø 8	Ø 10	Ø 12	Ø 14	Ø 16	Ø 20	Ø 24	Ø 25	Ø 28	Ø 32
Steel failure												
Characteristic shear resistance	$V_{Rk,s,eq}$	[kN]	$0,35 \cdot A_s \cdot f_{uk}^{1)}$									
Cross section area	A_s	[mm ²]	50	79	113	154	201	314	452	491	616	804
Partial factor	$\gamma_{Ms,V}$	[-]	1,5 ²⁾									
Factor for annular gap	α_{gap}	[-]	0,5 (1,0) ³⁾									

¹⁾ f_{uk} shall be taken from the specifications of reinforcing bars

²⁾ in absence of national regulation

³⁾ Value in brackets valid for filled annular gap between anchor and clearance hole in the fixture. Use of special filling washer Annex A 3 is recommended

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Performances

Characteristic values of tension and shear loads under seismic action (performance category C1) for a working life of 50 and 100 years (rebar)

Annex C 16

**Table C22: Characteristic values of tension loads under seismic action
(performance category C2) for a working life of 50 and 100 years**

Anchor size threaded rod				M12	M16	M20	M24	
Steel failure								
Characteristic tension resistance, Steel, strength class 8.8 Stainless Steel A4 and HCR, Strength class ≥70		N _{Rk,s,eq,C2}	[kN]	1,0 · N _{Rk,s}				
Partial factor		γ _{Ms,N}	[-]	see Table C1				
Combined pull-out and concrete failure								
Characteristic bond resistance in cracked and non-cracked concrete C20/25								
Temperature range	I: 40°C/24°C	Dry, wet concrete and flooded bore hole	τ _{Rk,eq,C2}	[N/mm²]	3,6	3,5	3,3	2,3
	II: 80°C/50°C		τ _{Rk,eq,C2}	[N/mm²]	3,6	3,5	3,3	2,3
	III: 120°C/72°C		τ _{Rk,eq,C2}	[N/mm²]	3,1	3,0	2,8	2,0
	IV: 160°C/100°C		τ _{Rk,eq,C2}	[N/mm²]	2,5	2,7	2,5	1,8
Increasing factors for concrete ψ _C		C25/30 to C50/60		1,0				
Installation factor								
for dry and wet concrete	CAC	γ _{inst}	[-]	1,0				
	HDB			1,2				
for flooded bore hole	CAC			1,4				

**Table C23: Characteristic values of shear loads under seismic action
(performance category C2)**

Anchor size threaded rod				M12	M16	M20	M24
Steel failure							
Characteristic shear resistance Steel, strength class 8.8 Stainless Steel A4 and HCR, Strength class ≥ 70		$V_{Rk,s,eq,C2}$	[kN]	$0,70 \cdot V^0_{Rk,s}$			
Partial factor		$\gamma_{Ms,V}$	[-]	see Table C1			
Factor for annular gap		α_{gap}	[-]	0,5 (1,0) ¹⁾			

¹⁾ Value in brackets valid for filled annular gap between anchor and clearance hole in the fixture. Use of special filling washer Annex A 3 is recommended

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Performances

Characteristic values of tension and shear loads under seismic action (performance category C2)
for a working life of 50 and 100 years (threaded rod)

Annex C 17

Table C24: Displacements under tension load¹⁾ (threaded rod)

Anchor size threaded rod			M12	M16	M20	M24
Cracked concrete under seismic action (performance category C2)						
All temperature ranges	$\delta_{N,eq,C2}(DLS)$	[mm]	0,24	0,27	0,29	0,27
	$\delta_{N,eq,C2}(ULS)$	[mm]	0,55	0,51	0,50	0,58

Table C25: Displacements under shear load (threaded rod)

Anchor size threaded rod			M12	M16	M20	M24
Cracked concrete under seismic action (performance category C2)						
All temperature ranges	$\delta_{V,eq,C2}(DLS)$	[mm]	3,6	3,0	3,1	3,5
	$\delta_{V,eq,C2}(ULS)$	[mm]	7,0	6,6	7,0	9,3

Würth Injection System WIT-UH 300 / WIT-VH 300 / WIT-VM 300 for concrete

Performances

Displacements under seismic action (performance category C2) (threaded rods)

Annex C 18

ДЕКЛАРАЦИЯ ЗА ЕКСПЛОАТАЦИОННИ ПОКАЗАТЕЛИ

№ 5918500320_02_M_WIT-UH 300 (1)

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 инжекционна система WIT-UH 300
Арт. №: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Предвидена употреба/употреби: Verbunddübel zur Verankerung im Beton (Свързващ дюбел за закотвяне в бетон)
3. Производител: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 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 330499-01-0601, издание 4/2020
Европейска техническа оценка: ETA-17/0127 - 13.11.2020 г.
Орган за техническа оценка: Deutsches Institut für Bautechnik (DIBt), Berlin
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)		EAD 330499-01-0601 ETA-17/0127 – 13. 11,2020
Характерно съпротивление на натоварване на опън (статични и квазистатични въздействия)	Вижте приложение B3, C1 до C4, C6 до C7, C9 до C10	
Характерно съпротивление при напречно натоварване (статични и квазистатични въздействия)	Вижте приложение C1, C5, C8, C11	
Измествания под краткотрайно и дълготрайно натоварване	Вижте приложение C12 до C14	
Характерно съпротивление и измествания за сеизмична категория експлоатационни характеристики C1 и C2	Приложение C15 до C18	
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:



Франк Волперт
Прокурист мениджър Продуктов
мениджмънт



Др. инж. Зигфрид Байхтер
(Прокурист мениджър Качество)

Кюнцелзау, 01.1.2021 г.

PROHLÁŠENÍ O VLASTNOSTECH

Č. 5918500320_02_M_WIT-UH 300 (1)

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

- | | |
|---|--|
| 1. Jednoznačný identifikační kód typu výrobku: | Injekční systém Würth WIT-UH 300
Č. výr.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190 |
| 2. Zamýšlené/zamýšlená použití: | Spojovací hmoždinka pro ukotvení do betonu |
| 3. Výrobce: | Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau |
| 4. Systém(y) pro hodnocení a kontrolu stálosti vlastností: | Systém 1 |
| 5. Evropský dokument pro posuzování:
Evropské technické schválení:
Pracoviště pro technické posuzování: | EAD 330499-01-0601, vydání 4/2020
ETA-17/0127 - 13. 11. 2020
Deutsches Institut für Bautechnik, Berlin (DIBt, Německý institut pro stavební techniku v Berlíně)
2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt |
| Oznámený subjekt/oznámené subjekty: | |
| 6. Deklarovaná vlastnost/deklarované vlastnosti: | |

Podstatné charakteristické vlastnosti	Vlastnost	Harmonizovaná technická specifikace
Mechanická pevnost a stálost (BWR 1)		EAD 330499-01-0601 ETA-17/0127 - 13. 11. 2020
Charakteristická odolnost při namáhání tahem (statické a kvazistatické účinky)	Viz přílohu B3, C1 až C4, C6 až C7, C9 až C10	
Charakteristická odolnost při příčném namáhání (statické a kvazistatické účinky)	Viz přílohu C1, C5, C8, C11	
Posuny při krátkodobém a dlouhodobém zatížení	Viz přílohu C12 až C14	
Charakteristická odolnost a posuny pro seizmickou kategorii C1 a C2	Příloha C15 až C18	
Hygiena, zdraví a ochrana životního prostředí (BWR 3)		
Obsah, emise a/nebo uvolňování nebezpečných látek	Nehodnocené vlastnosti	

Vlastnosti výše uvedeného výrobku jsou ve shodě se souborem deklarovaných vlastností. Za vyhotovení prohlášení o vlastnostech v souladu s nařízením (EU) č. 305/2011 je odpovědný výhradně výše uvedený výrobce.

Podepsal za výrobce a jeho jménem:



Frank Wolpert
(zmocněnec - ředitel produktového
managementu)



Dr.-Ing. Siegfried Beichter
(zmocněnec - ředitel oddělení jakosti)

Künzelsau, 01. 01. 2021

YDEEVNEDEKLARATION

Nr. 5918500320_02_M_WIT-UH 300 (1)

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

- | | |
|---|---|
| 1. Produkttypens entydige identifikationskode: | Würth injektionssystem WIT-UH 300
Art.-nr.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190 |
| 2. Anvendelsesformål: | Skruedybel til forankring i beton |
| 3. Producent: | Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau |
| 4. System(er) til bedømmelse og kontrol af ydelsesbestandigheden: | System 1 |
| 5. Europæisk vurderingsdokument:
Europæisk teknisk bedømmelse:
Teknisk evalueringsmyndighed:
Notificeret myndighed/notificerede myndigheder: | EAD 330499-01-0601, Edition 4/2020
ETA-17/0127 - 13-11-2020
Deutsches Institut für Bautechnik (DIBt), Berlin
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)		EAD 330499-01-0601 ETA-17/0127 - 13. 11.2020
Karakteristisk modstand under trækbelastning (statiske og kvasi-statiske påvirkninger)	Se bilag B3, C1 til C4, C6 til C7, C9 til C10	
Karakteristisk modstand under tværbelastning (statiske og kvasi-statiske påvirkninger)	Se bilag C1, C5, C8, C11	
Forskydninger under korttids- og langtidsbelastning	Se bilag C12 til C14	
Karakteristisk modstand og forskydninger til seismisk ydelseskategori C1 og C2	Bilag C15 til C18	
Hygiejne, sundhed og miljøbeskyttelse (BWR 3)		
Indhold, emission og/eller frigivelse af farlige stoffer	Ydelse ikke evalueret	

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

Underskrevet for og på vegne af producenten af:



Frank Wolpert
(Prokurist - leder produktmanagement)



Dr.-ing. Siegfried Beichter
(Prokurist - leder af kvalitetsafdelingen)

Künzelsau, den 01.01.2021

LEISTUNGSERKLÄRUNG

Nr. 5918500320_02_M_WIT-UH 300 (1)

1. Eindeutiger Kenncode des Produkttyps: Würth Injektionssystem WIT-UH 300
Art.-Nr.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Verwendungszweck(e): Verbunddübel zur Verankerung im Beton
3. Hersteller: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau
4. System(e) zur Bewertung und Überprüfung der Leistungsbeständigkeit: System 1
5. Europäisches Bewertungsdokument: EAD 330499-01-0601, Edition 4/2020
Europäische Technische Bewertung: ETA-17/0127 - 13.11.2020
Technische Bewertungsstelle: Deutsches Institut für Bautechnik (DIBt), Berlin
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)		EAD 330499-01-0601 ETA-17/0127 - 13. 11.2020
Charakteristischer Widerstand unter Zugbeanspruchung (statische und quasi-statische Einwirkungen)	Siehe Anhang B3, C1 bis C4, C6 bis C7, C9 bis C10	
Charakteristischer Widerstand unter Querbeanspruchung (statische und quasi-statische Einwirkungen)	Siehe Anhang C1, C5, C8, C11	
Verschiebungen unter Kurzzeit- und Langzeitbelastung	Siehe Anhang C12 bis C14	
Charakteristischer Widerstand und Verschiebungen für seismische Leistungskategorie C1 und C2	Anhang C15 bis C18	
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
(Prokurist - Leiter Produktmanagement)



Dr. -Ing. Siegfried Beichter
(Prokurist - Leiter Qualität)

Künzelsau, den 01.01.2021

DECLARACIÓN DE PRESTACIONES

N.º 5918500320_02_M_WIT-UH 300 (1)

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

1. Código de identificación única del producto tipo: Würth Injektionssystem WIT-UH 300 (sistema de inyección Würth)
N.º de art.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Uso(s) previsto(s): Taco químico para anclaje en hormigón
3. Fabricante: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 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 330499-01-0601, edición 4/2020
Evaluación Técnica Europea: ETA-17/0127 - del 13/11/2020
Organismo de Evaluación Técnica: Deutsches Institut für Bautechnik (DIBt), Berlín
Organismo(s) notificado(s): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Prestaciones declaradas:

Características esenciales	Prestación	Especificaciones técnicas armonizadas
Resistencia mecánica y estabilidad (BWR 1)		EAD 330499-01-0601 ETA-17/0127 - 13/ 11/2020
Resistencia característica bajo esfuerzo de tracción (efectos estáticos o cuasiestáticos)	Véanse anexos B3, C1 hasta C4, C6 hasta C7, C9 hasta C10	
Resistencia característica bajo esfuerzo transversal (efectos estáticos o cuasiestáticos)	Véanse los anexos C1, C5, C8 y C11	
Desplazamientos para exposición de corta y larga duración	Véanse los anexos C12 hasta C14	
Resistencia característica y desplazamientos para las categorías de actividad sísmicas C1 y C2	Anexos C15 hasta C18	
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.º 305/2011, bajo la sola responsabilidad del fabricante arriba identificado.

Firmado por y en nombre del fabricante por:



Frank Wolpert
(Apoderado - Director de Product Management)



Dr. -Ing. Siegfried Beichter
(Apoderado - Director de Calidad)

Künzelsau, el 01/01/2021

TOIMIVUSDEKLARATSIOON

Nr 5918500320_02_M_WIT-UH 300 (1)

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

- | | |
|---|---|
| 1. Tootetüübi kordumatu identifitseerimiskood: | Würthi ankurdussüsteem WIT-UH 300
Art-nr: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190 |
| 2. Ettenähtud kasutusotstarve või -otstarbed: | Sidumisankur kinnitamiseks betooni |
| 3. Tootja: | Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau |
| 4. Toimivuse püsivuse hindamise ja kontrolli süsteem(id): | Süsteem 1 |
| 5. Euroopa hindamisdokument:
Euroopa tehniline hinnang:
Tehnilise hindamise asutus:
Teavitatud asutus(ed): | EAD 330499-01-0601, 4/2020
ETA-17/0127 - 13.11.2020
Deutsches Institut für Bautechnik (DIBt), Berlin
2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt |
| 6. Deklareeritud toimevõime(ed): | |

Põhiomadused	Toimivus	Ühtlustatud tehniline kirjeldus
Mehaaniline tugevus ja vastupidavus (BWR 1)		EAD 330499-01-0601 ETA-17/0127 – 13. 11,2020
Iseloomulik vastupanu tõmbejõule (staatiline ja poolstaatiline mõju)	Vt lisa B3, C1 kuni C4, C6 kuni C7, C9 kuni C10	
Iseloomulik vastupanu külgjõule (staatiline ja poolstaatiline mõju)	Vt lisa C1, C5, C8, C11	
Nihked lühiajalisel ja pikaajalisel koormamisel	Vt lisa C12 kuni C14	
Iseloomulik vastupanu ja nihked seismiliste toimivuskategooriate C1 ja C2 puhul	Lisa C15 kuni C18	
Hügieen, tervishoid ja keskkonnakaitse (BWR 3)		
Ohtlike ainete sisaldus, eraldumine ja/või vabanemine	Toimivus hindamata	

Eespool nimetatud toodete toimevõime vastab deklareeritud toimevõimele / deklareeritud toimevõimetele. Vastavusdeklaratsiooni koostamise eest kooskõlas määrusega (EL) nr 305/2011 vastutab ainuisikuliselt eespool nimetatud tootja.

Tootja poolt ja nimel allkirjastanud:



Frank Wolpert
(Prokurist-tootejuht)



Dr. ins. Siegfried Beichter
(Prokurist-kvaliteedijuht)

Künzelsau, 01.01.2021

SUORITUSTASOILMOITUS**Nro 5918500320_02_M_WIT-UH 300 (1)**

**Tämä on käännös saksankielisestä.
Epäilyksissä pätee saksankielinen alkuperäisilmoitus.**

1. Tuotetyypin yksilöllinen tunnistus: Würth injektiojärjestelmä WIT-UH 300
Tuote-nro: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Aiottu käyttötarkoitus (aiotut käyttötarkoitukset): Vaarnaruuvi betoniin ankkuroimiseksi
3. Valmistaja: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau, Saksa
4. Suoritusarvioinnin ja tarkistamisen järjestelmä(t): Järjestelmä 1
5. Eurooppalainen arviointidokumentti: EAD 330499-01-0601, julkaisu 4/2020
Eurooppalainen tekninen arviointi: ETA-17/0127 - 13.11.2020
Teknisestä arvioinnista vastaava laitos: Deutsches Institut für Bautechnik (DIBt; Saksan rakennustekninen instituutti),
Berliini
Ilmoitettu laitos / ilmoitetut laitokset: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW;
teräsrakenneteollisuuden ja materiaalimekaniikan instituutti), Darmstadt
6. Ilmoitettu suoritusarvio/ilmoitetut suoritusarvot:

Perusominaisuudet	Suoritusarvio	Yhdenmukaistetut tekniset eritelmät
Mekaaninen lujuus ja vakaus (BWR 1)		EAD 330499-01-0601 ETA-17/0127 - 13. 11.2020
Ominaisvastus vetokuormituksessa (staattiset ja kvasistaattiset rasitukset)	Katso liitteet B3, C1 - C4, C6 - C7, C9 - C10	
Ominaisvastus poikkikuormituksessa (staattiset ja kvasistaattiset rasitukset)	Katso liitteet C1, C5, C8, C11	
Siirtymä lyhytaikaisessa ja pitkäaikaisessa kuormituksessa	Katso liitteet C12 - C14	
Ominaisvastus ja siirtymä seismisille teholuokille C1 ja C2	Liitteet C15 - C18	
Hygienia, terveys ja ympäristönsuojelu (BWR 3)		
Vaarallisten aineiden sisältö, päästöt ja/tai vapautuminen	Suoritusarvio ei määritetty	

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

Valmistajan puolesta allekirjoittanut:



Frank Wolpert
(Prokuristi - tuotehallinnon johtaja)



TkT Siegfried Beichter
(Prokuristi - laadunjohtaja)

Künzelsau, 01.01.2021

DÉCLARATION DE PERFORMANCES

N° 5918500320_02_M_WIT-UH 300 (1)

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

1. **Code d'identification unique du produit type :** Système à injecter Würth WIT-UH 300
N° de réf. : 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. **Usage(s) prévu(s) :** Cheville composite d'ancrage dans le béton
3. **Fabricant :** Adolf Würth GmbH & Co. KG
Reinhold-Würth-Strasse 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 330499-01-0601, édition 4/2020
Évaluation technique européenne : ETA-17/0127 - 13/11/2020
Organisme d'évaluation technique : Deutsches Institut für Bautechnik (DIBt), Berlin
Organisme(s) notifié(s) : 2873, Institut für Stahlbau und Werkstoffmechanik (IFS), Darmstadt
6. **Performance(s) déclarée(s) :**

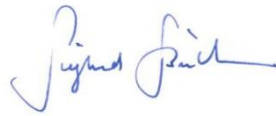
Caractéristiques essentielles	Performance	Spécification technique harmonisée
Résistance mécanique et stabilité verticale (BWR 1)		EAD 330499-01-0601 ETA-17/0127 – 13/11/2020
Résistance caractéristique sous contrainte de traction (forces pénétrantes statiques et quasi-statiques)	Voir les annexes B3, C1 à C4, C6 à C7, C9 à C10	
Résistance caractéristique sous contrainte transversale (forces pénétrantes statiques et quasi-statiques)	Voir les annexes C1, C5, C8, C11	
Déplacements sous charge de courte et de longue durée	Voir les annexes C12 à C14	
Résistance caractéristique et déplacements pour les catégories de performance sismique C1 et C2	Annexes C15 à C18	
Hygiène, santé et environnement (BWR 3)		
Contenu, rejet et/ou 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 :



Frank Wolpert
(Fondé de pouvoir – Directeur Gestion
Produits)



Dr. -Ing. Siegfried Beichter
(Fondé de pouvoir – Directeur Qualité)

Künzelsau, le 01/01/2021

DEARBHÚ FEIDHMÍOCHTA

Uimh. 5918500320_02_M_WIT-UH 300 (1)

**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:** Würth Injektionssystem WIT-UH 300
Uimh.earra: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. **Úsáid(i) b(h)eartaithe:** Ancaire nasctha le haghaidh daingnithe i gcoincreít
3. **Déantúsóir:** 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 330499-01-0601, Eagrán 4/2020
Measúnú Teicniúil Eorpach: ETA-17/0127 - 11/13/2020
Ionad Measúnaithe Teicniúil: Deutsches Institut für Bautechnik, DIBt (Ionad Teicníocht Tógála na Gearmáine), Beirlín
Iona(i)d dá dtugtar fógra: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt (Institiúid um Fhoirgníocht Chruach agus Meicníocht Ábhair (IFSW), Darmstadt
6. **Feidhmíocht(aí) d(h)earbhaithe:**

Príomhthréithe	Feidhmíocht	Sonraíocht theicniúil chomhchuibhithe
Friotaíocht agus Cobhsaíocht Mheicniúil (BWR 1)		EAD 330499-01-0601 ETA-17/0127 - 13/ 11/2020
Seasmhacht shaintréitheach faoi straidhn tarraingthe (tionchair statacha agus cuasastatacha)	Féach iarscríbhinn B3, C1 go C4, C6 go C7, C9 go C10	
Friotaíocht thréitheach faoi strus trasnach (tionchair statacha agus cuasastatacha)	Féach iarscríbhinn C1, C5, C8, C11	
Aistrithe faoi strus ar feadh gearrthréimse agus tréimhse fada	Féach iarscríbhinní C12 go C14	
Friotaíocht thréitheach agus aistriú maidir le catagóir feidhmíochta sheismeach C1 agus C2	Iarscríbhinn C15 go C18	
Sláintíocht, Sláinte agus Cosaint Comhshaoil (BWR 3)		
Ábhar, Astaíocht 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.

Sínihte ar son agus thar ceann an déantúsóra ag:



Frank Wolpert
(Oifigeach Údaraithe - Stiúrthóir um
Bainistíocht Táirgí)



Dr. -Ing. Siegfried Beichter
(Oifigeach Údaraithe - Stiúrthóir
Cáilíochta)

Künzelsau, 01/01/2021

ΔΗΛΩΣΗ ΕΠΙΔΟΣΕΩΝ

Αρ. 5918500320_02_M_WIT-UH 300 (1)

**Πρόκειται για την έκδοση μεταφρασμένη από τα γερμανικά.
Σε περίπτωση αμφιβολιών, ισχύει το γερμανικό πρωτότυπο**

1. Μοναδικός κωδικός αναγνώρισης του τύπου του προϊόντος: Σύστημα έγχυσης Würth WIT-UH 300
Αρ. είδ.: 5918500320, 5918504280, 5918500420, 5918503825, 591850*, 090546*, 090547*, 59151*, 59152*, 59153*, 59160*, 59151*, 59162*, 5916408110, 5916410130, 5916412160, 5916416190
2. Σκοπός (-οί) χρήσης: Χημικό αγκύριο για αγκύρωση σε σκυρόδεμα
3. Κατασκευαστής: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau
4. Σύστημα (-τα) για την αξιολόγηση και τον έλεγχο της διατήρησης της επίδοσης: Σύστημα 1
5. Ευρωπαϊκό έντυπο αξιολόγησης: EAD 330499-01-0601, έκδοση 4/2020
Ευρωπαϊκή τεχνική αξιολόγηση: ETA-17/0127 - 13.11.2020
Οργανισμός τεχνικής αξιολόγησης: Deutsches Institut für Bautechnik (DIBt), Βερολίνο
Κοινοποιημένος οργανισμός (-οί): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Δηλωμένη επίδοση (-εις):

Σημαντικά χαρακτηριστικά	Επίδοση	Εναρμονισμένες τεχνικές προδιαγραφές
Μηχανική αντοχή και αντίσταση (BWR 1)		EAD 330499-01-0601 ETA-17/0127 – 13. 11.2020
Χαρακτηριστική αντίσταση υπό εφελκυστική καταπόνηση (στατικές και οιονεί στατικές επιδράσεις)	Βλέπε παράρτημα B3, C1 έως C4, C6 έως C7, C9 έως C10	
Χαρακτηριστική αντίσταση υπό εγκάρσια καταπόνηση (στατικές και οιονεί στατικές επιδράσεις)	Βλέπε παράρτημα C1, C5, C8, C11	
Μετατοπίσεις υπό μικρής ή μεγάλης διάρκειας φορτίο	Βλέπε παράρτημα C12 έως C14	
Χαρακτηριστική αντίσταση και μετατοπίσεις για σεισμική κατηγορία ισχύος C1 και C2:	Παράρτημα C15 έως C18	
Υγιεινή, υγεία και προστασία περιβάλλοντος (BWR 3)		
Περιεχόμενο, εκπομπές και/ή απελευθέρωση επικινδυνών ουσιών	Η επίδοση δεν έχει αξιολογηθεί	

Η επίδοση του προαναφερόμενου προϊόντος αντιστοιχεί στη δηλωμένη επίδοση/στις δηλωμένες επιδόσεις. 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 εν ονόματι του κατασκευαστή από:



Frank Wolpert

(Γενικός εμπορικός πληρεξούσιος -
Διευθυντής διαχείρισης παραγωγής)



Dr. -Ing. Siegfried Beichter

(Γενικός εμπορικός πληρεξούσιος -
Διευθυντής ποιότητας)

Künzelsau, την 01.01.2021

IZJAVA O SVOJSTVIMA

Br. 5918500320_02_M_WIT-UH 300 (1)

**Ova je verzija teksta prevedena s njemačkog.
U slučaju dvojbe original na njemačkom ima prednost**

1. Jedinstvena identifikacijska oznaka tipa proizvođača: Würth injekcijski sustav WIT-UH 300
Br. art.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Namjena(e): Spojni zatici za kotvljenje u betonu
3. Proizvođač: Adolf Würth GmbH & Co. KG
Reinhold- Würth-Str. 12 - 17
D - 74653 Künzelsau
4. Sustav/i za ocjenjivanje i provjeru postojanosti svojstava: Sustav 1
5. Europski dokument za ocjenjivanje: EAD 330499-01-0601, izdanje 4./2020.
Europska tehnička ocjena: ETA-17/0127 - 13.11.2020.
Tijelo za tehničku ocjenu: Njemački institut građevinarstva (DIBt), Berlin
Prijavljeno/a 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)		EAD 330499-01-0601 ETA-17/0127 – 13. 11.2020.
Karakteristični otpor pri uzdužnom opterećenju (statično i kvazistatično djelovanje):	Vidi priloge B3, C1 do C4, C6 do C7, C9 do C10	
Karakteristični otpor pri poprečnom opterećenju (statično i kvazistatično djelovanje)	Vidi priloge C1, C5, C8, C11	
Pomicanja pod kratkoročnim i dugoročnim opterećenjem	Vidi priloge C12 do C14	
Karakteristični otpor i pomicanja za seizmičku kategoriju učinka C1 i C2	Prilozi C15 do C18	
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:



Frank Wolpert
(Prokurist – voditelj upravljanja
proizvodima)



Dr. – Ing. Siegfried Beichter
(Prokurist – voditelj za kvalitetu)

Künzelsau, 1.1.2021.

TELJESÍTMÉNYNYILATKOZAT

5918500320_02_M_WIT-UH 300 (1) sz.

**Ez a német nyelvről lefordított változat.
Kétség esetén a német nyelvű eredeti az érvényes.**

1. A terméktípus egyedi azonosító kódja: Würth WIT-UH 300 injekciós rendszer
Cikkszámok: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Felhasználási cél(ok): Kötőanyaggal rögzített horgony betonban való horgonyzáshoz
3. Gyártó: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 – 17
D – 74653 Künzelsau
4. A teljesítményállandóság értékelésére és ellenőrzésére szolgáló rendszer(ek): 1-es rendszer
5. Európai értékelési dokumentum: EAD 330499-01-0601, 2020/4-es kiadás
Európai Műszaki Értékelés: ETA-17/0127 – 2020.11.13.
Műszaki értékelő szervezet: Deutsches Institut für Bautechnik (DIBt), Berlin
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)		EAD 330499-01-0601 ETA-17/0127 – 13. 2020.11.
Jellemző ellenállás húzó igénybevétel esetén (statikus és kvázi-statisztikus hatások)	Lásd a B3, C1 – C4, C6 – C7, C9 – C10 mellékletet	
Jellemző ellenállás keresztirányú igénybevétel esetén (statikus és kvázi-statisztikus hatások)	Lásd a C1, C5, C8, C11 mellékletet	
Elmozdulások rövid idejű és hosszú idejű terhelés alatt	Lásd a C12 – C14 mellékleteket	
Jellemző ellenállás és eltolódások a C1 és C2 szeizmikus teljesítménykategória esetén	C15 – C18 melléklet	
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 képviselőjében és nevében aláírta:



Frank Wolpert
(cégvezető – termékmenedzsment
vezető)



Dr. -Ing. Siegfried Beichter
(cégvezető – minőségügyi vezető)

Künzelsau, 2021.01.01.

DICHIARAZIONE DI PRESTAZIONE

N. 5918500320_02_M_WIT-UH 300 (1)

**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-UH 300 (Ancorante chimico - sistema ad iniezione Würth WIT-UH 300)
Art. n.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190 |
| 2. Utilizzo/i previsto/i: | Ancorante chimico per l'ancoraggio nel calcestruzzo |
| 3. Azienda produttrice: | Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau |
| 4. Sistema/i di valutazione e verifica della prestazione: | Sistema 1 |
| 5. Documento per la Valutazione Europea: | EAD 330499-01-0601, edizione 4/2020 |
| Valutazione tecnica europea: | ETA-17/0127 - 13.11.2020 |
| Organismo di valutazione tecnica: | Deutsches Institut für Bautechnik (DIBt), Berlino |
| 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)		EAD 330499-01-0601 ETA-17/0127 - 13. 11.2020
Resistenza caratteristica a trazione (carichi statici e quasi statici)	Si vedano Allegati B3, da C1 a C4, da C6 a C7, da C9 a C10	
Resistenza caratteristica ai carichi orizzontali (carichi statici e quasi statici)	Si vedano Allegati C1, C5, C8, C11	
Variazioni con carichi a breve e lungo termine	Si vedano Allegati da C12 a C14	
Resistenza caratteristica e variazioni per categoria sismica C1 e C2	Allegati da C15 a C18	
Igiene, salute e ambiente (BWR 3)		
Contenuto, emissioni 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:



Frank Wolpert
(Procuratore - Responsabile gestione
prodotto)



Dr. -Ing. Siegfried Beichter
(Procuratore - Responsabile Qualità)

Künzelsau, 01.01.2021

EKSPLOATACINIŲ SAVYBIŲ DEKLARACIJA

Nr. 5918500320_02_M_WIT-UH 300 (1)

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

1. Produkto tipo unikalus atpažinimo kodas: „Würth“ injekcinė sistema WIT-UH 300
Artikulo Nr. 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Naudojimo paskirtis (-ys): sujungimo kaištis tvirtinimui betone
3. Gamintojas: „Adolf Würth GmbH & Co. KG“
Reinhold-Würth g. 12–17
D – 74653 Kiuncelsau
4. Eksploatacinių savybių atsparumo įvertinimo ir patikrinimo sistema (-os): 1 sistema
5. Europos įvertinimo dokumentas: EAD 330499-01-0601, 2020 m. balandžio mėn. leidimas
Europos techninis įvertinimas: ETA-17/0127, atliktas 2020-11-13
Techninio vertinimo įstaiga: „Deutsches Institut für Bautechnik (DIBt)“, Berlynas
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)		EAD 330499-01-0601 ETA-17/0127 – 13. 11,2020
Būdingas pasipriešinimas tempimo įtampai (statinė ir kvazistatinė apkrova)	Žr. priedus: B3, C1 iki C4, C6 iki C7, C9 iki C10	
Būdingas pasipriešinimas skersinei įtampai (statinė ir kvazistatinė apkrova)	Žr. priedus: C1, C5, C8 iki C11	
Poslinkiai esant trumpalaikiai ir ilgalaikiai apkrovai	Žr. priedą nuo C12 iki C14	
Būdingas atsparumas ir poslinkis seisminei eksploatacinių savybių kategorijai C1 ir C2	Priedai: C15 iki C18	
Higiena, sveikata ir aplinkosauga (BWR 3)		
Pavojingų medžiagų turinys, emisija ir (arba) išskyrimas	Neįvertinta eksploatacinė savybė	

Turimos 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:



Frank Wolpert

(Įgaliojasis produkto vadovas)



Dr. inž. Siegfried Beichter

(Įgaliojasis kokybės vadovas)

Kiuncelsau, 2021-01-01

EKSPLOATĀCIJAS ĪPAŠĪBU DEKLARĀCIJA

Nr. 5918500320_02_M_WIT-UH 300 (1)

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

1. **Nepārprotams produkta tipa identifikācijas kods:** *Würth* injekcijas sistēma WIT-UH 300
Preces Nr. 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. **Lietojuma mērķis(-i):** savienošanas dībelis enkurošanai betonā
3. **Ražotājs:** Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau (Kincelzava)
4. **Ekspluatācijas īpašību noturības novērtējuma un pārbaudes sistēma(-as):** Sistēma 1
5. **Eiropas novērtējuma dokuments:** EAD 330499-01-0601, 2020. g. aprīļa izdevums
Eiropas Tehniskais novērtējums: ETA-17/0127 - 13.11.2020
Tehniskā novērtējuma iestāde: Deutsches Institut für Bautechnik (DIBt), Berlin (Berlīne)
Paziņotā(-ās) iestāde(-es): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt (Darmštate)
6. **Deklarētā(-ās) ekspluatācijas īpašība(-as):**

Būtiskie raksturlielumi	Ekspluatācijas īpašības	Saskaņotā tehniskā specifikācija
Mehāniskā izturība un stiprība (BWR 1)		EAD 330499-01-0601 ETA-17/0127 – 13. 11.2020.
Raksturīgā pretestība stiepes slodzei (statiska un kvazistatiska iedarbība)	Skatīt B3, C1 līdz C4, C6 līdz C7, C9 līdz C10 pielikumu	
Raksturīgā pretestība šķērsslodzei (statiska un kvazistatiska iedarbība)	Skatīt C1, C5, C8, C11 pielikumu	
Bīde pie īslaicīgas un ilgstošas slodzes	skatīt C12 līdz C14 pielikumu	
Raksturīgā pretestība un bīde saistībā ar seismisko īpašību kategoriju C1 un C2	Skatīt C15 līdz C18 pielikumu	
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:



Frank Wolpert (Franks Volperts)

*(Prokurist – Leiter Produktmanagement
(prokūrists – produktu nodaļas
vadītājs))*

Künzelsau (Kincelzava), 01.01.2021.



Dr. -Ing. Siegfried Beichter (Dr. ing.
Zigfrīds Beihters)

*(Prokurist – Leiter Qualität (prokūrists –
kvalitātes sistēmas vadītājs))*

DIKJARAZZJONI TA' PRESTAZZJONI

Nru 5918500320_02_M_WIT-UH 300 (1)

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 tal-prodott:** Würth Sistema b'Injezzjoni WIT-UH 300
Nru tal-oġġett: 5918500320; 5918504280; 5918500420; 5918503825; 591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*; 59151*; 59162*; 5916408110; 5916410130; 5916412160; 5916416190
2. **Użu/i intenzjonat/i:** Kaviġja għat-twaħħil, għall-ankraġġ fil-konkrit
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 330499-01-0601, Edizzjoni 4/2020
Valutazzjoni Teknika Ewropea: ETA-17/0127 - 13/11/2020
Korp tal-valutazzjoni teknika: Deutsches Institut für Bautechnik (DIBt), Berlin
Korp/i nnotifikat/i: 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt, Germany
6. **Prestazzjoni/jiet ddikjarata/i:**

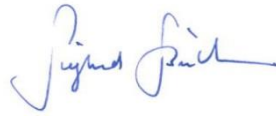
Karatteristiċi essenzjali	Prestazzjoni	Speċifikazzjoni teknika armonizzata
Stabbiltà u ebusija mekkanika (BWR 1)		EAD 330499-01-0601 ETA-17/0127 – 13. 11.2020
Reżistenza karatteristika taħt stress tensili (tagħbija statika u kważi statika)	Ara l-Annessi B3, C1 sa C4, C6 bis C7, C9 sa C10	
Reżistenza karatteristika taħt stress transversali (tagħbija statika u kważi statika)	Ara l-Annessi C1, C5, C8, C11	
Spostamenti taħt tagħbija għal ħin qasir u ħin twil	Ara l-Annessi C12 sa C14	
Reżistenza karatteristika u spostamenti għall-kategorija ta' prestazzjoni siżmika C1 u C2	Anness C15 sa C18	
Iġjene, saħħa u protezzjoni tal-ambjent (BWR 3)		
Kontenut, emissjoni u/jew rilaxx ta' sustanzi perikolużi	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:



Frank Wolpert
(Rapp. Awtorizzat - Kap, Ġestjoni tal-
Prodott)



Dr. -Ing. Siegfried Beichter
(Rapp. Awtorizzat - Kap, Ġestjoni tal-
Kwalità)

Künzelsau, 01/01/2021

PRESTATIEVERKLARING

Nr. 5918500320_02_M_WIT-UH 300 (1)

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

- | | |
|--|---|
| 1. Eenduidige identificatiecode van het producttype: | Würth injectiesysteem WIT-UH 300
Art.nr.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190 |
| 2. Gebruiksdoel(en): | compoundanker voor verankering in beton |
| 3. Fabrikant: | Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau |
| 4. Systeem/systemen voor beoordeling en verificatie van de prestatiebestendigheid: | Systeem 1 |
| 5. Europees beoordelingsdocument:
Europese technische beoordeling:
Technische beoordelingsinstantie:
Aangemelde instantie(s): | EAD 330499-01-0601, editie 4/2020
ETA-17/0127 - 13/11/2020
Deutsches Institut für Bautechnik (DIBt), Berlijn
2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt |
| 6. Vastgestelde prestatie(s): | |

Belangrijkste eigenschappen	Prestatie	Geharmoniseerde technische specificatie
Mechanische sterkte en stabiliteit (BWR 1)		EAD 330499-01-0601 ETA-17/0127 – 13. 11.2020
Karakteristieke weerstand bij trekbelasting (statische en quasi-statische inwerkingen)	Zie bijlage B3, C1 t/m C4, C6 t/m C7, C9 t/m C10	
Karakteristieke weerstand bij dwarsbelasting (statische en quasi-statische inwerkingen)	Zie bijlage C1, C5, C8, C11	
Verschuivingen onder kortstondige en langdurige belasting	Zie bijlage C12 t/m C14	
Karakteristieke weerstand en verschuiving voor seismische prestatie categorie C1 en C2	Bijlage C15 t/m C18	
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:



Frank Wolpert
(Procuratiehouder - Hoofd
Productmanagement)



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

Künzelsau, 01/01/2021

YTELSESERKLÆRING

Nr. 5918500320_02_M_WIT-UH 300 (1)

**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-UH 300 (Würth injeksjonssystem WIT-UH 300)
Art.-nr.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Bruksområde: Komposittplugg til forankring i betong
3. Produsent: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 – 17
D – 74653 Künzelsau
4. System(er) til vurdering og kontroll av ytelsesbestandigheten: System 1
5. Europeisk vurderingsdokument: EAD 330499-01-0601, Edition 4/2020
Europeisk teknisk godkjenning: ETA-17/0127 – 13.11.2020
Teknisk godkjenningsorgan: Deutsches Institut für Bautechnik, Berlin
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)		EAD 330499-01-0601 ETA-17/0127 – 13. 11.2020
Karakteristisk motstand ved strekkbelastning (statisk og nesten-statisk belastning)	Se vedlegg B3, C1 til C4, C6 til C7, C9 til C10	
Karakteristisk motstand ved tverrbelastning (statisk og nesten-statisk belastning)	Se vedlegg C1, C5, C8, C11	
Forskyvninger ved kortvarig og langvarig belastning	Se vedlegg C12 til C14	
Karakteristisk motstand og forskyvninger for seismisk kategori C1 og C2	Vedlegg C15 til C18	
Hygiene, helse og miljøvern (BWR 3)		
Innhold, emisjon og/eller utslipp av farlige stoffer	Ytelse ikke vurdert	

Ytelsen til dette produktet tilsvarende 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:



Frank Wolpert

(prokurist - leder produktstyring)



Dr. ing. Siegfried Beichter

(prokurist- leder kvalitet)

Künzelsau, den 01.01.2021

DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH

Nr 5918500320_02_M_WIT-UH 300 (1)

**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-UH 300
Nr artykułu: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Przeznaczenie: kołek rozporowy do kotwienia w betonie
3. Producent: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau
4. System (systemy) oceny i weryfikacji stałości właściwości użytkowych: System 1
5. Europejski dokument oceny: EAD 330499-01-0601, edycja 4/2020
Europejska Ocena Techniczna: ETA-17/0127 - 13.11.2020
Placówka sporządzająca ocenę techniczną: Deutsches Institut für Bautechnik (DIBt), Berlin
Jednostka/-i notyfikowana/-e: 2873, Institut für Stahlbau und Werkstoffmechanik (Instytut konstrukcji stalowych i mechaniki tworzyw), Darmstadt
6. Deklarowane właściwości użytkowe:

Istotne cechy	Właściwości użytkowe	Zharmonizowana specyfikacja techniczna
Wytrzymałość mechaniczna i stateczność (BWR 1)		EAD 330499-01-0601 ETA-17/0127 - 13. 11.2020
Opór właściwy przy naprężeniu rozciągającym (oddziaływania statyczne i quasi statyczne)	Patrz załącznik B3, C1 do C4, C6 do C7, C9 do C10	
Opór właściwy przy naprężeniu poprzecznym (oddziaływania statyczne i quasi statyczne)	Patrz załącznik C1, C5, C8, C11	
Przesunięcia na skutek krótko- i długotrwałego obciążenia	Patrz załącznik C12 do C14	
Opór właściwy i przesunięcia dla sejsmicznej kategorii właściwości C1 i C2	Załącznik C15 do C18	
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:



Frank Wolpert

(Prokurent - Kierownik działu
zarządzania produktami)



Dr inż. Siegfried Beichter

(Prokurent - Kierownik działu jakości)

Künzelsau, dnia 01.01.2021 r.

DECLARAÇÃO DE DESEMPENHO**N.º 5918500320_02_M_WIT-UH 300 (1)****Versão traduzida da versão alemã.****Em caso de dúvida, é válido o original em alemão**

1. **Código de identificação inequívoco do tipo de produto:** Sistema de injeção WIT-UH 300 Würth
N.º art.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. **Fim/fins de utilização:** Cavilha de fixação por aderência para ancoragem em betão
3. **Fabricante:** Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau
4. **Sistema(s) para avaliação e verificação da constância do desempenho:** Sistema 1
5. **Documento de avaliação europeu:** EAD 330499-01-0601, edição 4/2020
Avaliação Técnica Europeia: ETA-17/0127 - 13.11.2020
Organismo de Avaliação Técnica: Deutsches Institut für Bautechnik (DIBt), Berlim
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)		EAD 330499-01-0601 ETA-17/0127 - 13. 11,2020
Resistência característica sob esforço de tração (cargas estáticas e quase-estáticas)	Veja anexo B3, C1 até C4, C6 até C7, C9 até C10	
Resistência característica sob esforço transversal (cargas estáticas e quase-estáticas)	Veja anexo C1, C5, C8, C11	
Deslocamentos sob esforço a curto prazo e a longo prazo	Ver anexo C12 a C14	
Resistência característica e deslocamentos para a categoria de desempenho sísmico C1 e C2	Anexo C15 até C18	
Higiene, saúde e proteção do ambiente (BWR 3)		
Teor, emissão e/ou libertação de substâncias perigosas	Desempenho não avaliado	

O desempenho do presente 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 (UE) n.º 305/2011.

Assinado pelo fabricante e em nome do fabricante por:



Frank Wolpert
(Procurador - Diretor de gestão de
produtos)



Dr. Eng.° Siegfried Beichter
(Procurador - Diretor de qualidade)

Künzelsau, a 01.01.2021

DECLARAȚIE DE PERFORMANȚĂ

Nr. 5918500320_02_M_WIT-UH 300 (1)

**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-UH 300
Nr. articol: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. **Scopul sau scopurile de utilizare:** Diblu de îmbinare pentru ancorare în beton
3. **Producător:** Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau
4. **Sistem(e) pentru evaluarea și verificarea constanței performanței:** Sistem 1
5. **Document european de evaluare:** EAD 330499-01-0601, Ediție 4/2020
Evaluare tehnică europeană: ETA-17/0127 - 13.11.2020
Organism de evaluare tehnică: Deutsches Institut für Bautechnik (DIBt), Berlin
Organism(e) notificat(e): 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt (Institutul pentru construcții metalice și mecanica materialelor)
6. **Performanța(e) declarată(e):**

Caracteristici esențiale	Performanță	Specificație tehnică armonizată
Rezistență mecanică și stabilitate (BWR 1)		EAD 330499-01-0601 ETA-17/0127 - 13. 11,2020
Rezistență caracteristică la solicitarea de tracțiune (efecte statice și cvazistatice)	A se vedea Anexa B3, C1 până la C4, C6 până la C7, C9 până la C10	
Rezistență caracteristică la solicitarea transversală (efecte statice și cvazistatice)	A se vedea anexele C1, C5, C8, C11	
Deplasări la solicitări de scurtă și de lungă durată	A se vedea anexa C12 până la C14	
Rezistență caracteristică și deplasarea pentru categoria de performanțe seismice C1 și C2	Anexa C15 până la C18	
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:



Frank Wolpert
(Reprezentant legal - director pentru
producție)



Dr.-Ing. Siegfried Beichter
(Reprezentant legal - director dep.
calitate)

Künzelsau, 01.01.2021

ДЕКЛАРАЦИЯ ХАРАКТЕРИСТИК

№ 5918500320_02_M_WIT-UH 300 (1)

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

- | | |
|--|---|
| 1. Однозначная маркировка типа продукта: | Система инъекции Würth WIT-UH 300
Арт. №: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190 |
| 2. Цель(и) применения: | Комбинированный дюбель для анкеровки в бетоне |
| 3. Изготовитель: | Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau |
| 4. Система(ы) для оценки и проверки стабильности характеристик: | Система 1 |
| 5. Европейский оценочный документ:
Европейская техническая оценка:
Орган технической оценки
Уполномоченный(е) орган(ы): | EAD 330499-01-0601, редакция 4/2020
ETA-17/0127 - 13.11.2020
Германский институт строительных технологий (DIBt), Берлин
2873, Институт строительных конструкций и механики материалов (IFSW),
Дармштадт |
| 6. Заявленная(-ые) характеристика(-и): | |

Важные признаки	Характеристика	Гармонизированная техническая спецификация
Механическая прочность и устойчивость (BWR 1)		EAD 330499-01-0601 ETA-17/0127 - 13. 11.2020
Типичное сопротивление при растяжении (статические и квазистатические нагрузки)	См. Приложение В3, с С1 по С4, с С6 по С7, с С9 по С10	
Типичное сопротивление при работе на срез (статические и квазистатические нагрузки):	См. Приложение С1, С5, С8, С11	
Смещения при кратковременном и длительном действии нагрузок	См. Приложение с С12 по С14	
Типичное сопротивление и смещения для категорий сейсмических нагрузок С1 и С2	Приложение с С15 по С18	
Гигиена, здоровье и охрана окружающей среды (BWR 3)		
Состав, эмиссия и/или выделение опасных веществ	Характеристика не определена	

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

Подписано за изготовителя и от имени изготовителя:



Франк Вольперт
(Прокурис -
Нач.производств.отдела)



Д-р-инж. Зигфрид Байхтер
(Прокурис - Нач. ОТК)

Кюнцельзау, 01.01.2021

PRESTANDEKLARATION

Nr. 5918500320_02_M_WIT-UH 300 (1)

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

1. **Produkttypens unika identifikationskod:** Würth injekteringssystem WIT-UH 300
Art.-nr.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. **Användningsändamål:** Ankarplugg för förankring i betong
3. **Tillverkare:** Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau
4. **System för bedömning och kontroll av prestandabeständighet:** System 1
5. **Europeiskt bedömningsdokument:** EAD 330499-01-0601, Edition 4/2020
Europeisk teknisk bedömning: ETA-17/0127 - 2020-11-13
Tekniskt bedömningsorgan: Deutsches Institut für Bautechnik (DIBt), Berlin
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)		EAD 330499-01-0601 ETA-17/0127 - 2020-11-13
Karakteristiskt motstånd vid dragpåkänning (statisk och kvasistatisk påverkan)	Se Bilaga B3, C1 till C4, C6 till C7, C9 till C10	
Karakteristiskt motstånd vid tvärbelastning (statisk och kvasistatisk påverkan)	Se Bilaga C1, C5, C8, C11	
Förskjutningar vid korttids- och långtidsbelastning	Se Bilaga C12 till C14	
Karakteristiskt motstånd och förskjutningar för seismisk prestandakategori C1 och C2	Bilaga C15 till C18	
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:



Frank Wolpert
(Prokurist - Chef Produkthantering)



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

Künzelsau, 2021-01-01

VYHLÁSENIE O VLASTNOSTIACH

Nr. 5918500320_02_M_WIT-UH 300 (1)

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

- | | |
|---|---|
| 1. Jednoznačný identifikačný kód typu výrobku: | Würth Injekčný systém WIT-UH 300
Výr. č.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190 |
| 2. Účel(y) použitia: | Spojovacie hmoždinky na ukotvenie do betónu |
| 3. Výrobca: | Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau |
| 4. Systém (systémy) na posudzovanie a overovanie odolnosti parametrov: | Systém 1 |
| 5. Európsky vyhodnocovací dokument:
Európske technické vyhodnotenie:
Pracovisko pre technické vyhodnotenie: | EAD 330499-01-0601, edícia 4/2020
ETA-17/0127 - 13.11.2020
Deutsches Institut für Bautechnik (Nemecký inštitút pre stavebnú techniku) (DIBt), Berlín |
| Notifikovaný orgán(y): | 2873, Ústav pre oceľové konštrukcie a mechaniku materiálov (IFSW), Darmstadt |
| 6. Vlastnosť(i) uvedené vo vyhlásení: | |

Podstatné znaky	Vlastnosť	Harmonizovaná technická špecifikácia
Mechanická pevnosť a stabilita (BWR 1)		EAD 330499-01-0601 ETA-17/0127 – 13. 11.2020
Charakteristická odolnosť pri ťahovom namáhaní (statické a kvázi-statické účinky)	Pozri dodatok B3, C1, C5 až C4, C6 až C7, C9 až C10	
Charakteristická odolnosť pri priečnom namáhaní (statické a kvázi-statické účinky)	Pozri dodatok C1, C5, C8 a C11	
Posuny pod krátkodobým a dlhodobým zaťažením	Pozri dodatok C12 až C14	
Charakteristická odolnosť a posuny pre seizmickú kategóriu výkonu C1 a C2	Dodatok C15 až C18	
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. Na vyhotovenie vyhlásenia o parametroch v súlade s nariadením (EÚ) č. 305/2011 je zodpovedný sám vyššie uvedený výrobca.

Podpísané pre výrobcu a v mene výrobcu:



Frank Wolpert
(Prokurista - vedúci výrobného
manažmentu)



Dr. -Ing. Siegfried Beichter
(Prokurista - vedúci kvality)

Künzelsau, dňa 01. 01. 2021

IZJAVA O LASTNOSTIH

Št. 5918500320_02_M_WIT-UH 300 (1)

**To besedilo je prevod iz nemščine.
V primeru dvoma velja nemški izvirnik**

- | | |
|---|--|
| 1. Enotna identifikacijska oznaka tipa izdelka: | Vbrizgalni sistem Würth WIT-UH 300
Št. art.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190 |
| 2. Nameni uporabe: | Kombinirano sidro za sidranje v beton |
| 3. Proizvajalec: | Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau, Nemčija |
| 4. Sistemi za vrednotenje in preverjanje trajnosti lastnosti: | Sistem 1 |
| 5. Evropski ocenjevalni dokument:
Evropsko tehnično vrednotenje:
Organ, ki je opravil tehnično vrednotenje:
Obveščeni organ: | EAD 330499-01-0601, izdaja 4/2020
ETA-17/0127 - 13.11.2020
Deutsches Institut für Bautechnik (DIBt), Berlin

2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt |
| 6. Navedene lastnosti: | |

Bistvene značilnosti	Lastnost	Harmonizirana tehnična specifikacija
Mehanska trdnost in stabilnost (BWR 1)		EAD 330499-01-0601 ETA-17/0127 – 13. 11.2020
Značilna odpornost pri potezni obremenitvi (statični in kvazistatični učinki)	Glejte priloge B3, od C1 do C4, od C6 do C7, od C9 do C10	
Značilna odpornost pri prečni obremenitvi (statični in kvazistatični učinki)	Glejte Priloge C1, C5, C8, C11	
Premikanje pri kratkotrajni in dolgotrajni obremenitvi	Glejte Priloge od C12 do C14	
Značilna odpornost in premik pri seizmičnih obremenitvah, kategoriji zmogljivosti C1 in C2	Priloge od C15 do C18	
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:



Frank Wolpert
(prokurist – vodja izdelkov)



Dr. -Ing. Siegfried Beichter
(prokurist – vodja za kakovost)

Künzelsau, 1. 1. 2021

PERFORMANS BEYANI**No. 5918500320_02_M_WIT-UH 300 (1)**

**Bu metin, Almanca dilinden yapılmış bir çeviridir.
Şüpheli durumlarda Almanca orijinal metin geçerli olacaktır**

1. Ürün tipinin açık kodu: Würth Injektionssystem WIT-UH 300 (Würth Enjeksiyon sistemi WIT-UH 300)
Ürün No.: 5918500320; 5918504280; 5918500420; 5918503825;
591850*; 090546*; 090547*; 59151*; 59152*; 59153*; 59160*;
59151*; 59162*; 5916408110; 5916410130; 5916412160;
5916416190
2. Kullanma amacı (amaçları): Betona ankraj için kimyasal dübel
3. Üretici: Adolf Würth GmbH & Co. KG
Reinhold-Würth-Straße 12 - 17
D - 74653 Künzelsau
4. Performansın sürdürülebilirliğinin değerlendirilmesi ve kontrolü için sistem(ler): Sistem 1
5. Avrupa Değerlendirme Belgesi: EAD 330499-01-0601, Baskı 4/2020
Avrupa Teknik Değerlendirmesi: ETA-17/0127 - 13.11.2020
Teknik Değerlendirme Kuruluşu: Deutsches Institut für Bautechnik (DIBt), Berlin
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)		EAD 330499-01-0601 ETA-17/0127 - 13. 11.2020
Çekme yükü altındaki karakteristik direnç (statik ve sözde statik etkiler)	Bkz. Ek B3, C1 ila C4, C6 ila C7, C9 ila C10	
Çekme yükü ve enine yük altındaki karakteristik direnç (Statik ve sözde statik etkiler)	Bkz. Ek C1, C5, C8, C11	
Kısa ve uzun süreli yük altında kaydırmalar	Bkz. Ek C12 ila C14	
Sismik performans kategorisi C1 ve C2 için karakteristik direnç ve kaydırmalar	Ek C15 ila C18	
Hijyen, sağlık ve çevre koruma (BWR 3)		
İçerik, Tehlikeli maddelerin emisyonu ve / veya açığa çıkması	Performans değerlendirilmemiştir	

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

Üretici için ve üretici adına imzalayan:



Frank Wolpert

(İmzaya yetkili ürün yönetim bölümü
yöneticisi)



Dr. Müh. Siegfried Beichter

(İmzaya Yetkili Kalite Yöneticisi)

Künzelsau, 01.01.2021