

**DECLARATION OF PERFORMANCE**  
**NR. LE\_0905440811\_05\_M\_W-VIZ**

**LANGUAGE VERSIONS :**

Language	Site
EN	2
ETA-04/0095 (EN)	4
BG	36
CZ	38
DA	40
DE	42
ES	44
ET	46
FI	48
FR	50
GA	52
GR	54
HR	56
HU	58
IT	60
LT	62
LV	64
MT	66
NL	68
NO	70
PL	72
PT	74
RO	76
RU	78
SE	80
SK	82
SL	84
TR	86

## DECLARATION OF PERFORMANCE

**No. LE\_0905440811\_05\_M\_W-VIZ**

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 W-VIZ  
[Würth W-VIZ injection system]  
Art. no.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(except for the following articles: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
2. Intended use(s):  
Bonded anchor for anchoring in concrete
3. Manufactured by:  
Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12-17  
D-74653 Künzelsau
4. System(s) of assessment and verification of constancy of performance:  
System 1
5. European Assessment Document:  
European Technical Assessment:  
Technical Assessment Body:  
Notified Body or Bodies:  
EAD 330499-01-0601, Edition 04/2020  
ETA-04/0095 of 21/07/2023  
Deutsches Institut für Bautechnik (DIBT), Berlin  
2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Declared performance:

<b>Essential characteristics</b>	<b>Performance</b>	<b>Harmonized technical specification</b>
<b>Mechanical resistance and stability (BWR 1)</b>		
Characteristic tension resistance (static and quasi-static loads)	See Annex C1 - C3, C10, B5 - B6	
Characteristic shear resistance (static and quasi-static loads)	See Annex C4 - C5, C11	
Displacements for short term and long term loading	See Annex C8 - C9, C11	ETA-04/0095 EAD 330499-01-0601
Characteristic resistance and displacements for seismic design categories C1 and C2	See Annex C6 - C9	
<b>Hygiene, health and environment (BWR 3)</b>		
Contents, emission and/or release of hazardous substances	Performance not rated	



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

Signed for and on behalf of the manufacturer by:

Original signed by:

---

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

Künzelsau, 07/21/2023

Original signed by:

---

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

Approval body for construction products  
and types of construction

Bautechnisches Prüfamt

An institution established by the Federal and  
Laender Governments

★ ★ ★  
★ Designated  
according to  
Article 29 of Regula-  
tion (EU) No 305/2011  
and member of EOTA  
(European Organi-  
sation for Technical  
Assessment)  
★ ★ ★  
★ ★

## European Technical Assessment

ETA-04/0095  
of 21 July 2023

English translation prepared by DIBt - Original version in German language

### General Part

Technical Assessment Body issuing the  
European Technical Assessment:

Trade name of the construction product

Product family  
to which the construction product belongs

Manufacturer

Manufacturing plant

This European Technical Assessment  
contains

This European Technical Assessment is  
issued in accordance with Regulation (EU)  
No 305/2011, on the basis of

This version replaces

Deutsches Institut für Bautechnik

Injection System W-VIZ

Bonded fastener for use in concrete

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

Werk 1 Werk 3

32 pages including 3 annexes which form an integral part  
of this assessment

330499-01-0601, Edition 04/2020

ETA-04/0095 issued on 11 May 2017

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 Injection System V-WIZ is a torque controlled bonded fastener consisting of a cartridge with injection mortar WIT-VIZ, WIT-VIZ EXPRESS, WIT-VM 100 or WIT-EXPRESS and an anchor rod with expansion cones and external connection thread (type W-VIZ-A) or with internal connection thread (type W-V-Z-IG).

The load transfer is realised by mechanical interlock of several cones in the bonding mortar and then via a combination of bonding and friction forces in the anchorage ground (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 fastener 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 fastener of at least 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the 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 C1 – C3, C10, B5 – B6
Characteristic resistance to shear load (static and quasi-static loading)	See Annex C4 – C5, C11
Displacements under short-term and long-term loading	See Annex C8 – C9, C11
Characteristic resistance and displacements for seismic performance categories C1 and C2	See Annex C6 – C9

#### 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 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.

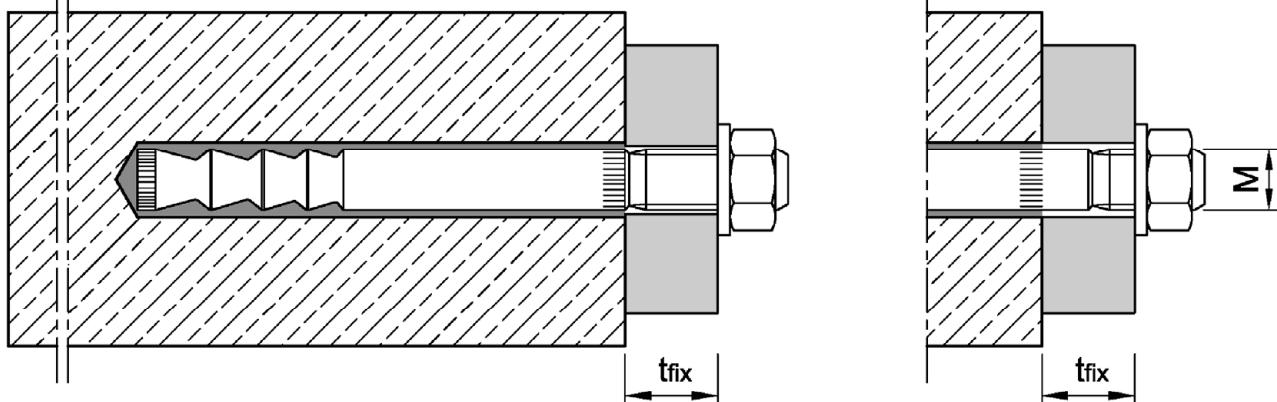
Issued in Berlin on 21 July 2023 by Deutsches Institut für Bautechnik

Dipl.-Ing. Beatrix Wittstock  
Head of Section

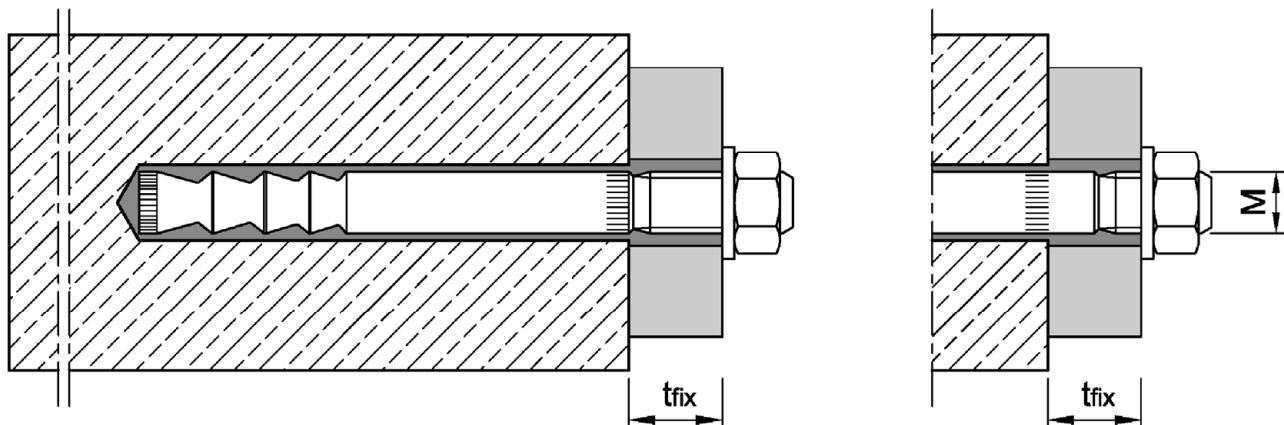
*beglaubigt:*  
Baderschneider

### Anchor rod W-VIZ-A

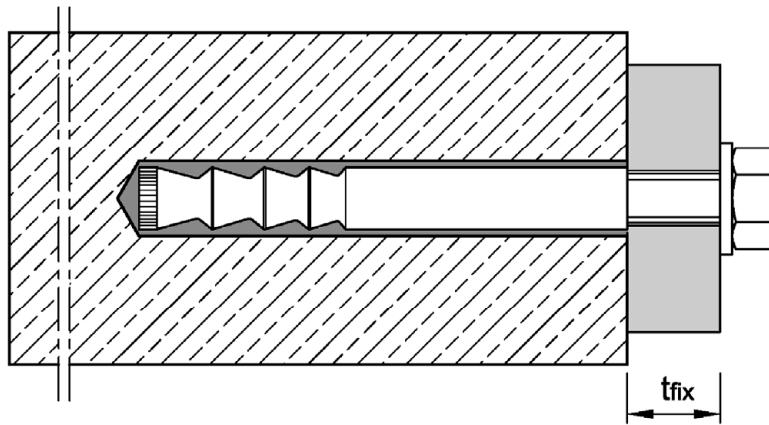
Pre-setting installation (and through-setting installation W-VIZ-A 75 M12, see Annex B11)



Through-setting installation



Anchor rod W-VIZ-IG with internal thread<sup>1)</sup>



<sup>1)</sup> Illustration with hexagon head screw exemplified; other screws or threaded rods also permitted (see Annex A5, requirements of the fastening screw or threaded rod).

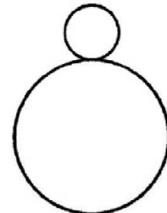
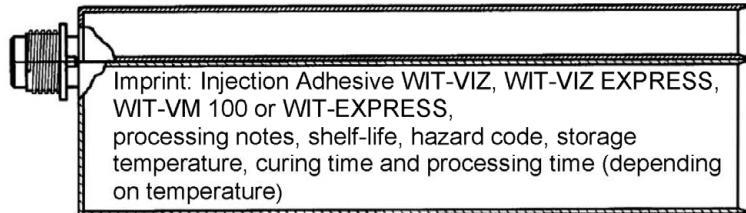
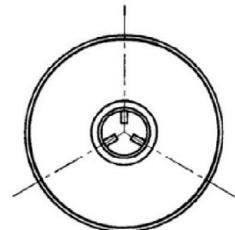
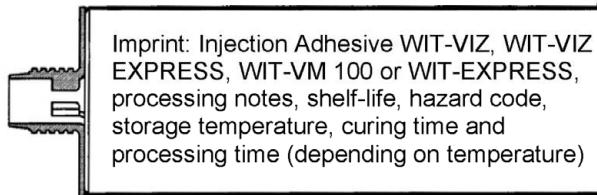
### Injection System W-VIZ

**Product description**  
Installation situation

**Annex A1**

## Injection System W-VIZ

Mortar cartridge



Sealing cap



Reducing  
adapter



Static mixer Fill & Clean



Blow-out pump



Air Blower

Cleaning Brush WIT-RMB

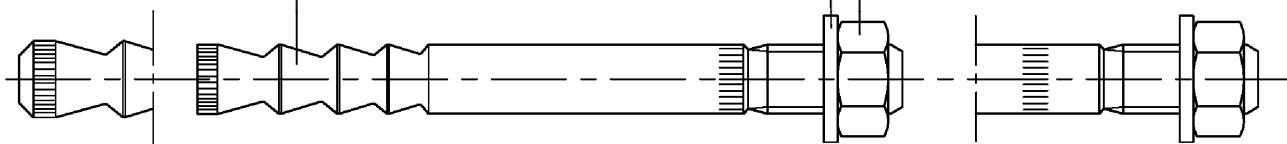


Anchor rod W-VIZ-A

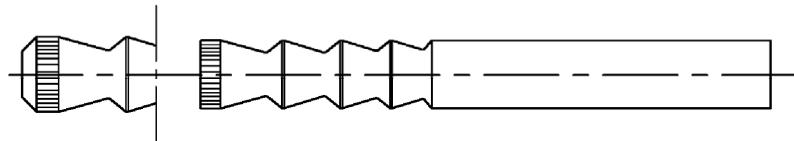
Washer

(optional: washer with bore)

Hexagon nut



Anchor rod W-VIZ-IG



## Injection System W-VIZ

### Product description

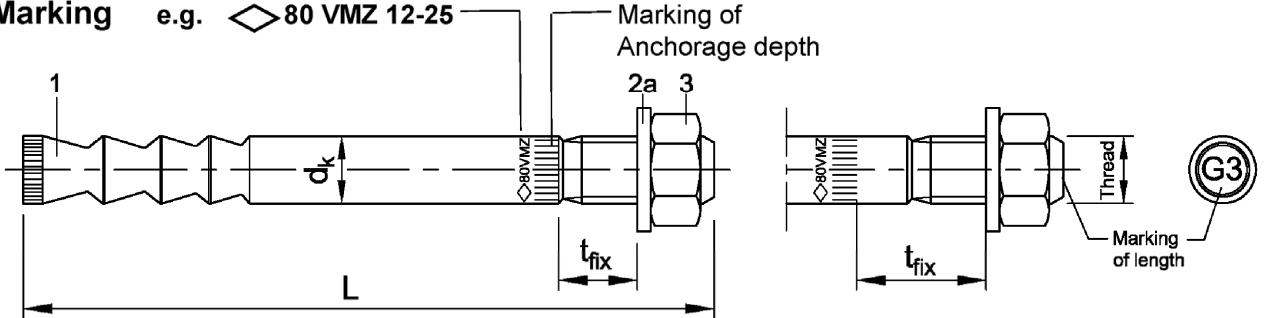
Cartridges, Cleaning tools, Anchor types

### Annex A2

**Table A1: Materials W-VIZ-A**

Part	Designation	Steel, zinc plated			Stainless steel A4 (CRC III)	High corrosion resistant steel HCR (CRC V)
		galvanised $\geq 5\mu\text{m}$	hot-dip galvanised $\geq 40\mu\text{m}$ ( $50\mu\text{m}$ in average)	sherardized $\geq 45\mu\text{m}$		
1	Anchor rod	Steel acc. to EN ISO 683-1:2018			Stainless steel, 1.4401, 1.4404, 1.4571, EN 10088:2014, coated	High corrosion resistant steel 1.4529, 1.4565 EN 10088:2014, coated
		galvanised and coated	hot-dip galvanised and coated	sherardized and coated		
2a	Washer	Steel, zinc plated			Stainless steel, EN 10088:2014	High corrosion resistant steel 1.4529, 1.4565 EN 10088:2014
2b	Washer with bore					
3	Hexagon nut	Property class 8 acc. to EN ISO 898-2:2012			EN ISO 3506-2: 2020, A4-70, A4-80 1.4401, 1.4571 EN 10088:2014	EN ISO 3506-2:2020, Property class 70, high corrosion resistant steel 1.4529, 1.4565 EN 10088:2014
4	Mortar cartridge	Vinylester resin, styrene free, mixing ratio 1:10				

**Marking** e.g.  $\diamond 80\text{ VMZ }12-25$



$\diamond$  identifying mark of manufacturing plant  
 80 anchorage depth  
 VMZ fastener identity  
 12 size of thread  
 25 maximum thickness of fixture  $t_{fix}$  (when using washer 2a)  
 A4 additional marking of stainless steel  
 HCR additional marking of high corrosion resistant steel

**Washer with bore**

Marking of length	B	C	D	E	F	G	H	I	J	K	L	M	N	
Length of anchor	min $\geq$	50,8	63,5	76,2	88,9	101,6	114,3	127,0	139,7	152,4	165,1	177,8	190,5	203,2
	max <	63,5	76,2	88,9	101,6	114,3	127,0	139,7	152,4	165,1	177,8	190,5	203,2	215,9

Marking of length	O	P	Q	R	S	T	U	V	W	X	Y	Z	>Z	
Length of anchor	min $\geq$	215,9	228,6	241,3	254,0	279,4	304,8	330,2	355,6	381,0	406,4	431,8	457,2	482,6
	max <	228,6	241,3	254,0	279,4	304,8	330,2	355,6	381,0	406,4	431,8	457,2	482,6	

### Injection System W-VIZ

**Product description**  
W-VIZ-A: Materials, Marking, Marking of length

**Annex A3**

**Table A2: Dimensions of anchor rod, W-VIZ-A M8 – M12**

Anchor size	W-VIZ-A	40 M8	50 M8	60 M10	75 M10	75 M12	70 M12	80 M12	95 M12	100 M12	110 M12	125 M12
Additional marking		1	2	1	2	1	2	3	4	5	6	7
1 Anchor rod	Thread	M8		M10				M12				
	Number of cones	2	3	3	3	3	3	4	4	6	6	6
	$d_k =$	8,0	8,0	9,7	9,7	10,7	12,5	12,5	12,5	12,5	12,5	12,5
	Length L (with washer 2a)	52+t <sub>fix</sub>	63+t <sub>fix</sub>	75+t <sub>fix</sub>	90+t <sub>fix</sub>	95+t <sub>fix</sub>	90+t <sub>fix</sub>	100 +t <sub>fix</sub>	115 +t <sub>fix</sub>	120 +t <sub>fix</sub>	130 +t <sub>fix</sub>	145 +t <sub>fix</sub>
	Reduction t <sub>fix</sub> <sup>1)</sup> (with washer with bore 2b)	3,4	3,4	3	3	2,5	2,5	2,5	2,5	2,5	2,5	2,5
3	Hexagon nut	SW	13	13	17	17	19	19	19	19	19	19

<sup>1)</sup> When using washer with bore (2b) the thickness of fixture is reduced by the specified value.

Dimensions in mm

**Table A3: Dimensions of anchor rod, W-VIZ-A M16 – M24**

Anchor size	W-VIZ-A	90 M16	105 M16	125 M16	145 M16	160 M16	115 M20	170 M20 (LG)	190 M20 (LG)	170 M24 (LG)	200 M24 (LG)	225 M24 (LG)
Additional marking		1	2	3	4	5	1	2	3	1	2	3
1 Anchor rod	Thread	M16		M16		M16		M20		M20		M24
	Number of cones	3	4	6	6	6	3	6	6	6	6	6
	$d_k =$	16,5	16,5	16,5	16,5	16,5	19,7	22,0	22,0	24,0	24,0	24,0
	Length L (with washer 2a)	114 +t <sub>fix</sub>	129 +t <sub>fix</sub>	150 +t <sub>fix</sub>	170 +t <sub>fix</sub>	185 +t <sub>fix</sub>	143 +t <sub>fix</sub>	203 +t <sub>fix</sub>	223 +t <sub>fix</sub>	210 +t <sub>fix</sub>	240 +t <sub>fix</sub>	265 +t <sub>fix</sub>
	Reduction t <sub>fix</sub> <sup>1)</sup> (with washer with bore 2b)	2	2	2	2	2	2	2	2	2	2	2
3	Hexagon nut	SW	24	24	24	24	24	30	30	30	36	36

<sup>1)</sup> When using washer with bore (2b) the thickness of fixture is reduced by the specified value.

Dimensions in mm

#### Injection System W-VIZ

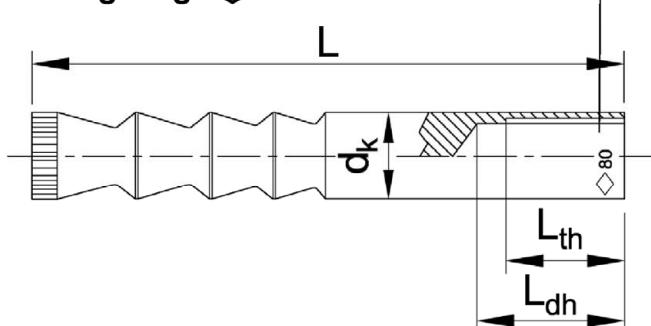
**Product description**  
W-VIZ-A: Anchor dimensions

**Annex A4**

**Table A4: Materials W-VIZ-IG**

Part	Designation	Steel, zinc plated $\geq 5\mu\text{m}$	Stainless steel A4 (CRC III)	High corrosion resistant steel HCR (CRC V)
1	Anchor rod	Steel acc. to EN ISO 683-4:2018, galvanized and coated	Stainless steel, 1.4401, 1.4404, 1.4571 acc. to EN 10088:2014, coated	High corrosion resistant steel 1.4529, 1.4565 acc. to EN 10088:2014, coated
4	Mortar cartridge	Vinylester resin, styrene free, mixing ratio 1:10		

Marking: e.g. ◇ 80 VMZ M10



◇ identifying mark of manufacturing plant  
 80 anchorage depth  
 VMZ fastener identity  
 M10 size of internal thread  
 A4 additional marking of stainless steel  
 HCR additional marking of high corrosion resistant steel

**Table A5: Dimensions of anchor rod W-VIZ-IG**

Anchor size	W-VIZ-IG	40 M6	50 M6	60 M8	75 M8	70 M10	80 M10	90 M12	105 M12	125 M12	115 M16	170 M16	170 M20
Internal thread	-	M6		M8		M10		M12		M16		M20	
Number of cones	-	2	3	3	3	3	4	3	4	6	3	6	6
Outer diameter $d_k$ [mm]	8,0	8,0	9,7	10,7	12,5	12,5	16,5	16,5	16,5	19,7	22,0	24,0	
Thread length $L_{th}$ [mm]	12	15	16	19	20	23	24	27	30	32	32	40	
Total length L [mm]	41	52	63	78	74	84	94	109	130	120	180	182	
Length identifier [mm]	$L_{dh} < 18$	$L_{dh} > 19$	$L_{dh} < 22,5$	$L_{dh} > 23,5$	$L_{dh} < 27$	$L_{dh} > 28$	$L_{dh} < 31,5$	$32,5 < L_{dh} < 34,5$	$L_{dh} > 35,5$	$d_k < 21$	$d_k > 21$	-	

#### Requirements of the fastening screw or the threaded rod and nut

- Minimum screw-in depth  $L_{sdmin}$  see Table B7
- The length of screw or the threaded rod must depending on the thickness of fixture  $t_{fix}$ , available thread length  $L_{th}$  (=maximum available thread length, see Table B7) and the minimum screw-in depth  $L_{sdmin}$  be established
- $A_5 > 8\%$  ductility
- Material
  - Steel, zinc plated:** Minimum property class 8.8 according to EN ISO 898-1:2013 or EN ISO 898-2:2022
  - Stainless steel A4 or high corrosion resistant steel (HCR):** Minimum property class 70 according to EN ISO 3506-1:2020 or according to EN ISO 3506-2:2020

#### Injection System W-VIZ

**Product description**  
W-VIZ-IG: Materials, Marking, Anchor dimensions

**Annex A5**

### Specifications of intended use

Injection System W-VIZ with anchor rod	W-VIZ-A	M8	M10	M12	M16	M20	M24
Static and quasi-static action							✓
Seismic action (Category C1 + C2)	- <sup>3)</sup>	✓	✓	✓	✓	✓	✓
Cracked or uncracked concrete							✓
Strength classes acc. to EN 206-1:2013+A1:2016					C20/25 to C50/60		
Reinforced or unreinforced normal weight concrete acc. to EN 206-1: 2013+A1:2016							✓
Temperature Range I	-40 °C to +80 °C			max. short term temperature +80 °C max. long term temperature +50 °C			
Temperature Range II	-40 °C to +120 °C			max. short term temperature +120 °C max. long term temperature +72 °C			
Making of drill hole	Hammer drill bit						✓
	Vacuum drill bit <sup>1)</sup>	- <sup>3)</sup>	✓	✓	✓	✓	✓
	Diamond drill bit (seismic action excluded)	- <sup>3)</sup>	✓	✓	✓	✓	✓
Installation allowable in	dry concrete						✓
	wet concrete						✓
	water-filled hole	- <sup>3)</sup>	- <sup>3)</sup>	✓ <sup>2)</sup>	✓	✓	✓
Overhead installation							✓
Pre-setting installation							✓
Trough-setting installation		- <sup>3)</sup>	✓	✓	✓	✓	✓

<sup>1)</sup> e.g. Würth vacuum drill bit, MKT vacuum drill bit or Heller Duster Expert

<sup>2)</sup> Exception: W-VIZ-A 75 M12 (Installation in water-filled drill hole is not allowed)

<sup>3)</sup> No performance assessed

Injection System W-VIZ with anchor rod	W-VIZ-IG	M6	M8	M10	M12	M16	M20
Static and quasi-static action							✓
Seismic action (Category C1 + C2)							- <sup>2)</sup>
Cracked and uncracked concrete							✓
Strength classes acc. to EN 206-1:2013+A1:2016					C20/25 to C50/60		
Reinforced or unreinforced normal weight concrete acc. to EN 206-1:2013+A1:2016							✓
Temperature Range I	-40 °C to +80 °C			max. short term temperature +80 °C max. long term temperature +50 °C			
Temperature Range II	-40 °C to +120 °C			max. short term temperature +120 °C max. long term temperature +72 °C			
Making of drill hole	Hammer drill bit						✓
	Vacuum drill bit <sup>1)</sup>	- <sup>2)</sup>	✓	✓	✓	✓	✓
	Diamond drill bit	- <sup>2)</sup>	✓	✓	✓	✓	✓
Installation allowable in	dry concrete						✓
	wet concrete						✓
	water-filled hole	- <sup>2)</sup>	- <sup>2)</sup>	✓	✓	✓	✓
Overhead installation							✓
Pre-setting installation							✓

<sup>1)</sup> e.g. Würth vacuum drill bit, MKT vacuum drill bit or Heller Duster Expert

<sup>2)</sup> No performance assessed

Injection System W-VIZ	Intended use Specifications and installation conditions						Annex B1
------------------------	--	--	--	--	--	--	----------

## Specifications of intended use

### Use conditions (Environmental conditions):

- Structures subject to dry internal conditions: all versions W-VIZ-A and W-VIZ-IG
- For all other conditions:  
Intended use of materials according to Annex A3, Table A1 and Annex A5, Table A4 corresponding to the corrosion resistance class CRC to EN 1993-1-4:2015

### Design:

- Anchorages are designed under the responsibility of an engineer experienced in anchorages and concrete work.
- 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 in accordance with EN 1992-4:2018 and Technical Report TR 055, Edition February 2018.

### Installation:

- Drill hole must be cleaned directly prior to installation of the anchor or the drill hole has to be protected against re-contamination in an appropriate way until dispensing the mortar in the drill hole.
- Water filled drill holes must not be polluted – otherwise the cleaning of the drill hole must be repeated.
- The anchor component installation temperature shall be at least +5 °C; during curing of the injection mortar the temperature of the concrete must not fall below -15 °C.
- It must be ensured that icing does not occur in the drill hole.
- Optionally, the annular gap between anchor rod and fixture may be filled with injection adhesive WIT-VIZ, WIT-VIZ EXPRESS, WIT-VM 100 or WIT-EXPRESS using the washer with bore (Part 2b, Annex A3) instead of the washer (Part 2a, Annex A3).

### Injection System W-VIZ

Intended use  
Specifications

Annex B2

**Table B1: Working and curing time WIT-VIZ, WIT-VM 100**

Temperature in the drill hole	Maximum working time	Minimum curing time dry concrete <sup>1)</sup>
- 15 °C to - 10 °C	45 min	7 d
- 9 °C to - 5 °C	45 min	10:30 h
- 4 °C to - 1 °C	45 min	6:00 h
0 °C to + 4 °C	20 min	3:00 h
+5 °C to + 9 °C	12 min	2:00 h
+10 °C to +19 °C	6 min	1:20 h
+20 °C to +29 °C	4 min	45 min
+30 °C to +34 °C	2 min	25 min
+35 °C to +39 °C	1,4 min	20 min
+ 40 °C	1,4 min	15 min
<b>Cartridge temperature</b>		≥ 5°C

<sup>1)</sup> Curing time in wet concrete shall be doubled.

**Table B2: Working and curing time WIT-VIZ EXPRESS, WIT-EXPRESS**

Temperature in the drill hole	Maximum working time	Minimum curing time dry concrete <sup>1)</sup>
- 5 °C to - 1 °C	20 min	4:00 h
0 °C to + 4 °C	10 min	2:00 h
+ 5 °C to + 9 °C	6 min	1:00 h
+10 °C to +19 °C	3 min	40 min
+20 °C to +29 °C	1 min	20 min
+ 30 °C	1 min	10 min
<b>Cartridge temperature</b>		≥ 5°C

<sup>1)</sup> Curing time in wet concrete shall be doubled.

### Injection System W-VIZ

**Intended use**  
Working and curing time

**Annex B3**

**Table B3: Installation parameters, W-VIZ-A M8 – M12**

Anchor size	W-VIZ-A	40 M8	50 M8	60 M10	75 M10	75 M12	70 M12	80 M12	95 M12	100 M12	110 M12	125 M12
Effective anchorage depth $h_{\text{ef}} \geq$	[mm]	40	50	60	75	75	70	80	95	100	110	125
Nominal diameter of drill hole $d_0 =$	[mm]	10	10	12	12	12	14	14	14	14	14	14
Depth of drill hole $h_0 \geq$	[mm]	42	55	65	80	80	75	85	100	105	115	130
Diameter of cleaning brush $D \geq$	[mm]	10,8	10,8	13,0	13,0	13,0	15,0	15,0	15,0	15,0	15,0	15,0
Installation torque $T_{\text{inst}} \leq$	[Nm]	10	10	15	15	25	25	25	25	30	30	30
Diameter of clearance hole in the fixture												
Pre-setting installation $d_f \leq$	[mm]	9	9	12	12	14	14	14	14	14	14	14
Through-setting installation $d_f \leq$	[mm]	- <sup>2)</sup>	- <sup>2)</sup>	14	14	14 <sup>1)</sup> / <sub>16</sub>	16	16	16	16	16	16

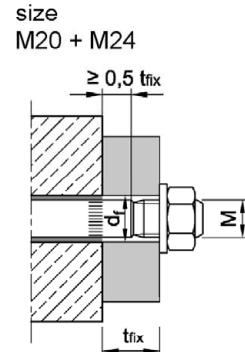
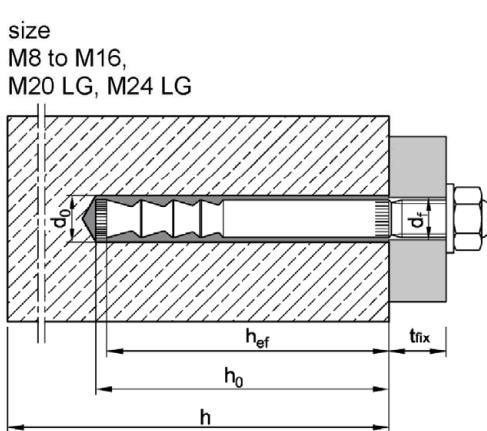
<sup>1)</sup> see Annex B11

<sup>2)</sup> No performance assessed

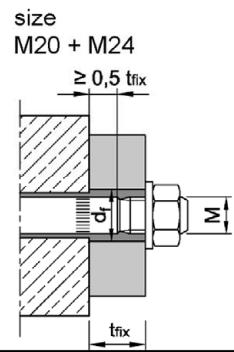
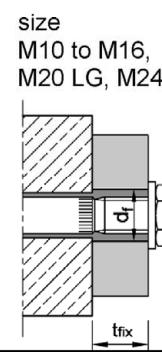
**Table B4: Installation parameters, W-VIZ-A M16 – M24**

Anchor size	W-VIZ-A	90 M16	105 M16	125 M16	145 M16	160 M16	115 M20	170 M20 (LG)	190 M20 (LG)	170 M24 (LG)	200 M24 (LG)	225 M24 (LG)
Effective anchorage depth $h_{\text{ef}} \geq$	[mm]	90	105	125	145	160	115	170	190	170	200	225
Nominal diameter of drill hole $d_0 =$	[mm]	18	18	18	18	18	22	24	24	26	26	26
Depth of drill hole $h_0 \geq$	[mm]	98	113	133	153	168	120	180	200	185	215	240
Diameter of cleaning brush $D \geq$	[mm]	19,0	19,0	19,0	19,0	19,0	23,0	25,0	25,0	27,0	27,0	27,0
Installation torque $T_{\text{inst}} \leq$	[Nm]	50	50	50	50	50	80	80	80	100	120	120
Diameter of clearance hole in the fixture												
Pre-setting installation $d_f \leq$	[mm]	18	18	18	18	18	22	24 (22)	24 (22)	26	26	26
Through-setting installation $d_f \leq$	[mm]	20	20	20	20	20	24	26	26	28	28	28

#### Pre-setting installation



#### Through-setting installation



The annular gap in the clearance hole in the fixture has to be filled completely by excess mortar!

#### Injection System W-VIZ

**Intended use**  
Installation parameters W-VIZ-A

**Annex B4**

**Table B5: Minimum spacing and edge distance, W-VIZ-A M8 – M12**

Anchor size	W-VIZ-A	40 M8	50 M8	60 M10	75 M10	75 M12	70 M12	80 M12	95 M12	100 M12	110 M12	125 M12
Minimum thickness of concrete	$h_{min}$ [mm]	80	80	100	110 100 <sup>1)</sup>	110	110	110	130 125 <sup>1)</sup>	130	140	160
<b>Cracked concrete</b>												
Minimum spacing	$s_{min}$ [mm]	40	40	40	40	50	55	40	40	50	50	50
Minimum edge distance	$c_{min}$ [mm]	40	40	40	40	50	55	50	50	50	50	50
<b>Uncracked concrete</b>												
Minimum spacing	$s_{min}$ [mm]	40	40	50	50	50	55	55	55	80 <sup>2)</sup>	80 <sup>2)</sup>	80 <sup>2)</sup>
Minimum edge distance	$c_{min}$ [mm]	40	40	50	50	50	55	55	55	55 <sup>2)</sup>	55 <sup>2)</sup>	55 <sup>2)</sup>

<sup>1)</sup> The reverse of the concrete member must not be damaged after drilling and must be filled with high-strength mortar if drilled through.

<sup>2)</sup> For an edge distance  $c \geq 80$  mm a minimum spacing  $s_{min} = 55$  mm is applicable.

**Table B6: Minimum spacing and edge distance, W-VIZ-A M16 – M24**

Anchor size	W-VIZ-A	90 M16	105 M16	125 M16	145 M16	160 M16	115 M20	170 (LG)	190 M20 (LG)	170 M24 (LG)	200 M24 (LG)	225 M24 (LG)
Minimum thickness of concrete	$h_{min}$ [mm]	130	150	170 160 <sup>1)</sup>	190 180 <sup>1)</sup>	205 200 <sup>1)</sup>	160	230 220 <sup>1)</sup>	250 240 <sup>1)</sup>	230 220 <sup>1)</sup>	270 260 <sup>1)</sup>	300 290 <sup>1)</sup>
<b>Cracked concrete</b>												
Minimum spacing	$s_{min}$ [mm]	50	50	60	60	60	80	80	80	80	80	80
Minimum edge distance	$c_{min}$ [mm]	50	50	60	60	60	80	80	80	80	80	80
<b>Uncracked concrete</b>												
Minimum spacing	$s_{min}$ [mm]	50	60	60	60	60	80	80	80	80	105	105
Minimum edge distance	$c_{min}$ [mm]	50	60	60	60	60	80	80	80	80	105	105

<sup>1)</sup> The reverse of the concrete member must not be damaged after drilling and must be filled with high-strength mortar if drilled through.

#### Injection System W-VIZ

##### Intended use

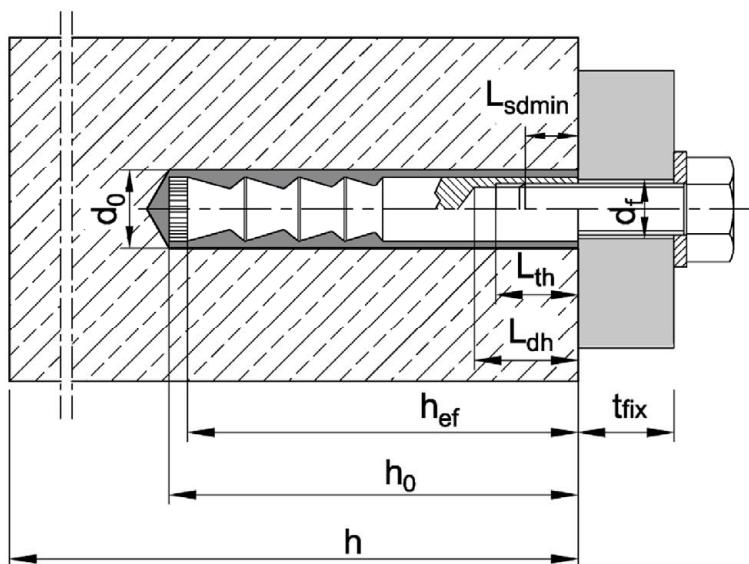
Minimum spacing and edge distance, W-VIZ-A

##### Annex B5

**Table B7: Installation parameters W-VIZ-IG**

Anchor size	W-VIZ-IG	40 M6	50 M6	60 M8	75 M8	70 M10	80 M10	90 M12	105 M12	125 M12	115 M16	170 M16	170 M20
Effective anchorage depth	$h_{\text{ef}}$ [mm]	40	50	60	75	70	80	90	105	125	115	170	170
Nominal diameter of drill hole	$d_0$ [mm]	10	10	12	12	14	14	18	18	18	22	24	26
Depth of drill hole	$h_0 \geq$ [mm]	42	55	65	80	80	85	98	113	133	120	180	185
Diameter of cleaning brush	$D \geq$ [mm]	10,8	10,8	13,0	13,0	15,0	15,0	19,0	19,0	19,0	23,0	25,0	27,0
Installation torque	$T_{\text{inst}} \leq$ [Nm]	8	8	10	10	15	15	25	25	25	50	50	80
Diameter of clearance hole in the fixture	$d_f \leq$ [mm]	7	7	9	9	12	12	14	14	14	18	18	22
Available thread length	$L_{\text{th}}$ [mm]	12	15	16	19	20	23	24	27	30	32	32	40
Minimum screw-in depth	$L_{\text{smin}}$ [mm]	7	7	9	9	12	12	14	14	14	18	18	22
Minimum thickness of concrete	$h_{\text{min}}$ [mm]	80	80	100	110	110	110	130	150	170 160 <sup>1)</sup>	160	230 220 <sup>1)</sup>	230 220 <sup>1)</sup>
<b>Cracked concrete</b>													
Minimum spacing	$s_{\text{min}}$ [mm]	40	40	40	40	55	40	50	50	60	80	80	80
Minimum edge distance	$c_{\text{min}}$ [mm]	40	40	40	40	55	50	50	50	60	80	80	80
<b>Uncracked concrete</b>													
Minimum spacing	$s_{\text{min}}$ [mm]	40	40	50	50	55	55	50	60	60	80	80	80
Minimum edge distance	$c_{\text{min}}$ [mm]	40	40	50	50	55	55	50	60	60	80	80	80

<sup>1)</sup> The reverse of the concrete member must not be damaged after drilling and must be filled with high-strength mortar if drilled through.



**Injection System W-VIZ**

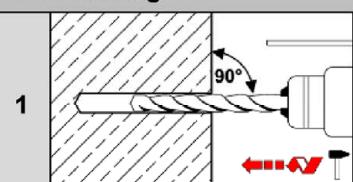
**Intended use**  
Installation parameters **W-VIZ-IG**

**Annex B6**

## Installation instructions - Hammer drill bit

### Hammer drill bit

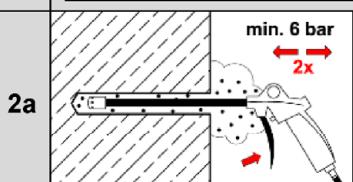
#### Hole drilling



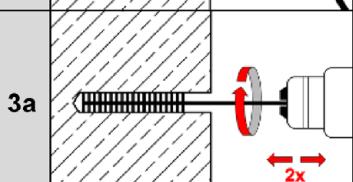
Use hammer drill or compressed air drill with drill bit and depth gauge. Drill perpendicular to concrete surface.

#### Cleaning

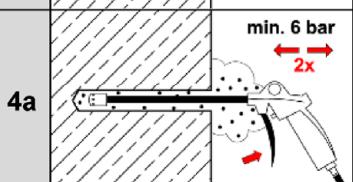
##### Cleaning with compressed air (all sizes)



Connect Air Blower to compressed air (min. 6 bar, oil-free). Open air valve and blow out drill hole along the entire depth with back and forth motion at least two times.

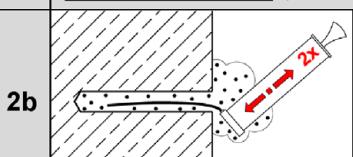


Check diameter of cleaning brush. If the brush can be pushed into the drill hole without any resistance, it must be replaced. Chuck brush into drill machine. Turn on drill machine and brush drill hole back and forth along the entire drill hole depth at least two times while rotated by drill machine.

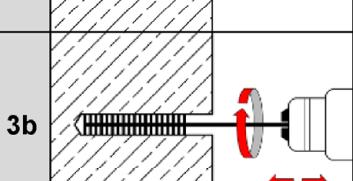


Connect Air Blower to compressed air (min. 6 bar, oil-free). Open air valve and blow out drill hole along the entire depth with back and forth motion at least two times.

##### Manual cleaning (alternatively, up to drill hole diameter 18mm)



Blow out drill hole from the bottom with Blow-out pump at least two times.



Check diameter of cleaning brush. If the brush can be pushed into the drill hole without any resistance, it must be replaced. Chuck brush into drill machine. Turn on drill machine and brush drill hole back and forth along the entire drill hole depth at least two times while rotated by drill machine.



Blow out drill hole from the bottom with Blow-out pump at least two times.

### Injection System W-VIZ

#### Intended use

Installation instructions

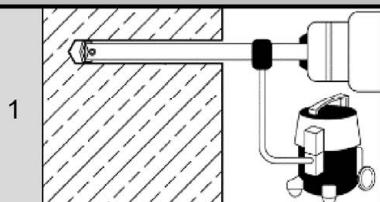
Hole drilling and cleaning (hammer drill bit)

Annex B7

## Installation instructions - Vacuum drill bit

### Vacuum drill bit

#### Hole drilling and cleaning



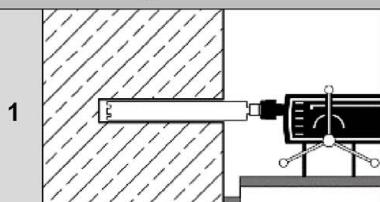
Drill hole perpendicular to concrete surface by using a vacuum drill bit (see Annex B1). The nominal underpressure of the vacuum cleaner must be at least 230 mbar / 23kPa.  
**Pay attention to the function of the dust extraction system!**  
Make sure the dust extraction is working properly throughout the whole drilling process.

**Additional cleaning is not necessary - continue with step 5!**

## Installation instructions - Diamond drilling

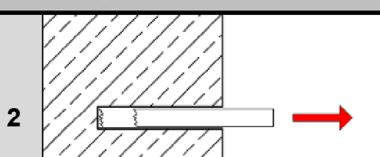
### Diamond drilling

#### Hole drilling

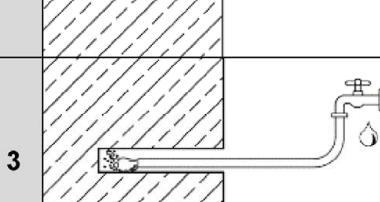


Use diamond drill with diamond drill bit and depth gauge.  
Drill perpendicular to concrete surface.

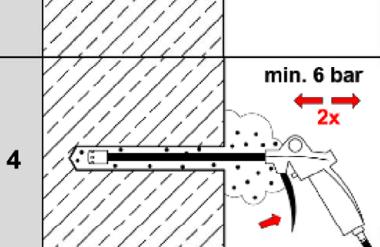
#### Cleaning



Remove drill core at least up to the nominal hole depth and check drill hole depth.



Flushing of drill hole:  
Flush drill hole with water, starting from the bottom, until clear water gets out of the drill hole.



Connect Air Blower to compressed air (min. 6 bar, oil-free).  
Open air valve and blow out drill hole along the entire depth with back and forth motion at least two times.

### Injection System W-VIZ

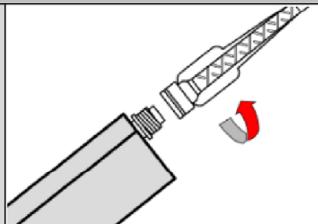
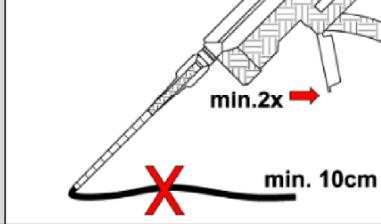
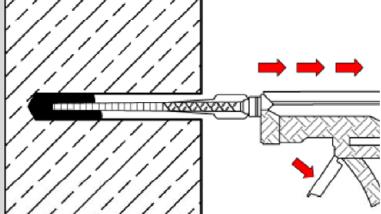
#### Intended use

Installation instructions

Hole drilling and cleaning (vacuum drill bit and diamond drill bit)

Annex B8

## Installation instructions - Continuation

Injection	
5	 Check expiration date on cartridge. Never use when expired. Remove cap from cartridge. Attach the supplied static mixer to the cartridge. For every working interruption longer than the recommended working time (Table B1 or Table B2) as well as for a new cartridge always use a new static mixer. Never use static mixer without helix inside.
6	 Insert cartridge in Dispenser. Before injecting discard mortar (at least 2 full strokes or a line of 10 cm) until it shows a consistent grey colour. Never use this mortar.
7	 Prior to injection, check if static mixer reaches the bottom of the drill hole. If it does not reach the bottom, plug Mixer Extension onto static mixer in order to fill the drill hole properly. Fill hole with a sufficient quantity of injection mortar. Start from the bottom of the drill hole and work out to avoid trapping air pockets.

## Injection System W-VIZ

**Intended use**  
Installation instructions  
Injection

**Annex B9**

## Installation instructions - Continuation

### Anchor rod W-VIZ-A

#### Inserting the anchor rod

8		Insert the anchor rod W-VIZ-A by hand, rotating slightly up to the full embedment depth as marked on the anchor rod. The anchor rod is properly set when excess mortar seeps from the hole (Pre-setting installation) or the annular gap in the clearance hole in the fixture is completely filled by excess mortar (Through-setting installation). If the hole is not completely filled, pull out anchor rod, let mortar cure, drill out hole and repeat entire cleaning process.
9		Follow minimum curing time shown in Table B1 or Table B2 During curing time, anchor rod must not be moved or loaded.
10		Remove excess mortar.
11		The fixture can be mounted after curing time. Apply installation torque $T_{inst}$ according to Table B3 or Table B4 by using torque wrench.

#### Filling annular gap

Optional		Annular gap between anchor rod and attachment may optionally be filled with mortar. Therefore, replace regular washer by washer with bore and plug on reducing adapter on static mixer. Annular gap is completely filled, when excess mortar seeps out.
----------	--	--

### Injection System W-VIZ

#### Intended use

Installation instructions

Installation Anchor rod W-VIZ-A

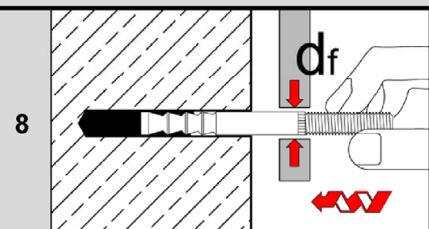
Annex B10

## Installation instructions – Stand-off Installation

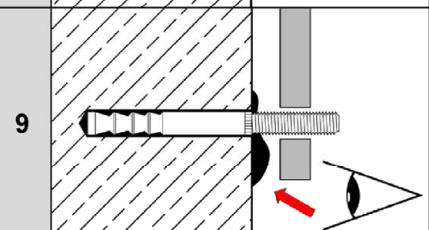
### Stand-off installation with Anchor rod W-VIZ-A 75 M12

Requirement: Diameter of clearance hole in the fixture  $d_f \leq 14$  mm

Work step 1-7 as illustrated in Annexes B7 – B9

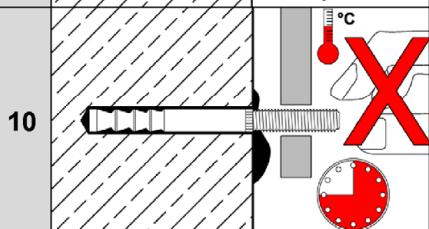


Insert the anchor rod W-VIZ-A by hand, rotating slightly up to the full embedment depth.

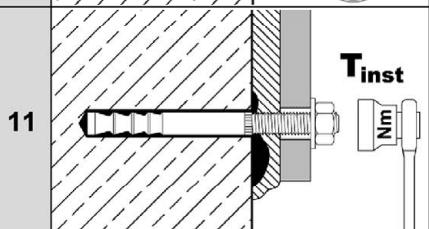


Check if excess mortar seeps from the hole. If the hole is not completely filled, pull out anchor rod, let mortar cure, drill out hole and repeat the entire cleaning process.

**The annular gap in the fixture does not have to be filled.**



During curing time according to Table B1 or Table B2 anchor rod must not be moved or loaded.



Washer and nut can be mounted after curing time and backfilling of anchor plate. Apply installation torque  $T_{inst}$  according to Table B3 by using torque wrench.

### Injection System W-VIZ

#### Intended use

Installation instructions W-VIZ-A 75 M12

Through-setting installation with clearance between concrete and anchor plate

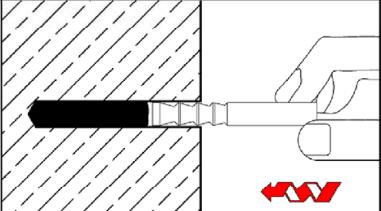
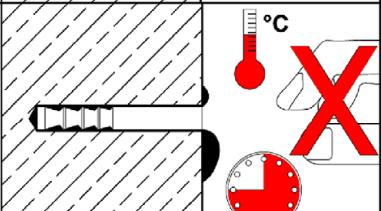
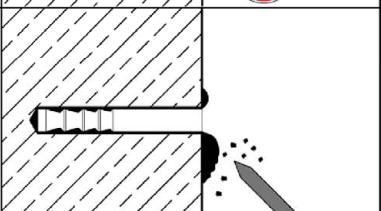
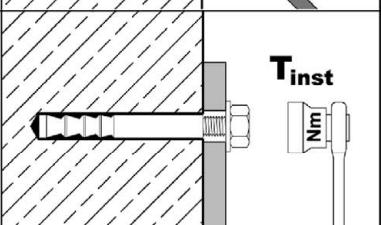
Annex B11

## Installation instructions - Continuation

### Anchor rod W-VIZ-IG

#### Setting of anchor

Work step 1-7 as illustrated in Annexes B7 – B9

8		Insert the anchor rod W-VIZ-IG by hand, rotating slightly up to about 1 mm below the concrete surface in the drill hole. The anchor rod is properly set when excess mortar seeps from the hole. If the hole is not completely filled, pull out anchor rod, let mortar cure, drill out hole and repeat the entire cleaning process.
9		Follow minimum curing time shown in Table B1 and Table B2. During curing time anchor rod must not be moved or loaded.
10		Remove excess mortar.
11		The fixture can be mounted after curing time. Apply installation torque $T_{inst}$ according to Table B7 by using torque wrench.

### Injection System W-VIZ

#### Intended use

Installation instructions  
Anchor installation W-VIZ-IG

Annex B12

**Table C1: Characteristic values for concrete failure and splitting**

Anchor size	W-VIZ-A W-VIZ-IG	all sizes		
<b>Concrete cone failure</b>				
Factor for $k_1$	uncracked concrete	$k_{ucr,N}$	[ $-$ ]	11,0
	cracked concrete	$k_{cr,N}$	[ $-$ ]	7,7
Characteristic edge distance		$c_{cr,N}$	[mm]	$1,5 \cdot h_{ef}$
Characteristic spacing		$s_{cr,N}$	[mm]	$2 \cdot c_{cr,N}$
<b>Splitting</b>				
For each proof of splitting failure, $N_{Rk,sp}$ shall be calculated according to EN 1992-4:2018, equation (7.23). The higher value for $N_{Rk,sp}$ of case 1 and case 2 may be applied for the design.				
<b>Case 1</b>				
Characteristic resistance	$N^0_{Rk,sp}$	[kN]	see following tables	
Characteristic edge distance	$c_{cr,sp}$	[mm]	$1,5 \cdot h_{ef}$	
Characteristic spacing	$s_{cr,sp}$	[mm]	$2 \cdot c_{cr,sp}$	
<b>Case 2</b>				
Characteristic resistance	$N^0_{Rk,sp}$	[kN]	$\min [N_{Rk,p} ; N^0_{Rk,c}]$	
Characteristic edge distance	$c_{cr,sp}$	[mm]	see following tables	
Characteristic spacing	$s_{cr,sp}$	[mm]	$2 \cdot c_{cr,sp}$	

**Injection System W-VIZ**

**Performance**

Characteristic values for **concrete failure and splitting, W-VIZ-A and W-VIZ-IG**

**Annex C1**

**Table C2: Characteristic values for tension loads, W-VIZ-A M8 – M12,  
static and quasi-static action**

Anchor size	W-VIZ-A		40 M8	50 M8	60 M10	75 M10	75 M12	70 M12	80 M12	95 M12	100 M12	110 M12	125 M12											
Installation factor	$\gamma_{\text{inst}}$	[–]	1,0																					
<b>Steel failure</b>																								
Characteristic resistance	$N_{Rk,s}$	[kN]	15	18	25	35	49	54	57															
Partial factor	$\gamma_{Ms}$	[–]	1,5																					
<b>Pull-out</b>																								
Characteristic resistance (concrete C20/25)																								
uncracked concrete	50°C / 80°C <sup>1)</sup>	$N_{Rk,p}$	[kN]	9	17,4	22,9	32	32	28,8	35,2	40	49,2	50											
	72°C / 120°C <sup>1)</sup>		[kN]	6	9	16	16	16	25	25	30	30	30											
cracked concrete	50°C / 80°C <sup>1)</sup>	$N_{Rk,p}$	[kN]	8,7	12,2	16	22,4	22,4	20,2	24,6	31,9	34,4	39,7											
	72°C / 120°C <sup>1)</sup>		[kN]	5	7,5	12	12	12	16	20	20	30	30											
<b>Splitting</b>																								
Splitting for <b>standard thickness of concrete member</b>																								
Standard thickness of concrete	$h_{\min,1} \geq$	[mm]	100	120	150	150	140	160	190	200	220	250												
<b>Case 1</b>																								
Characteristic resistance (concrete C20/25)	$N^0_{Rk,sp}$	[kN]	7,5	9	16	20	20	35,2	30	40														
<b>Case 2</b>																								
Characteristic edge distance	$c_{cr,sp}$	[mm]	3 $h_{\text{ef}}$	2,5 $h_{\text{ef}}$	3,5 $h_{\text{ef}}$	3,5 $h_{\text{ef}}$	2,5 $h_{\text{ef}}$	1,5 $h_{\text{ef}}$	2,5 $h_{\text{ef}}$	2 $h_{\text{ef}}$	3 $h_{\text{ef}}$	2,5 $h_{\text{ef}}$												
Splitting for <b>minimum thickness of concrete member</b>																								
Minimum thickness of concrete	$h_{\min,2} \geq$	[mm]	80	100	110	110	125	130	140	160														
<b>Case 1</b>																								
Characteristic resistance (concrete C20/25)	$N^0_{Rk,sp}$	[kN]	7,5	2) <sup>2)</sup>	16	16	20	25	25	30														
<b>Case 2</b>																								
Characteristic edge distance	$c_{cr,sp}$	[mm]	3 $h_{\text{ef}}$	3,5 $h_{\text{ef}}$	3 $h_{\text{ef}}$	3,5 $h_{\text{ef}}$	3,5 $h_{\text{ef}}$	3 $h_{\text{ef}}$	3,5 $h_{\text{ef}}$															
Increasing factor for $N_{Rk,p} = \psi_c \cdot N_{Rk,p}$ (C20/25) and $N^0_{Rk,sp} = \psi_c \cdot N^0_{Rk,sp}$ (C20/25) <sup>3)</sup>	$\psi_c$	[–]	$\left(\frac{f_{ck}}{20}\right)^{0,5}$																					
<b>Concrete cone failure</b>																								
Effective anchorage depth	$h_{\text{ef}}$	[mm]	40	50	60	75	75	70	80	95	100	110	125											
<b>Injection System W-VIZ</b>																								
<b>Performance</b> Characteristic values for <b>tension loads, W-VIZ-A M8 – M12, static and quasi-static action</b>										<b>Annex C2</b>														

<sup>1)</sup> Maximum long-term temperature / Maximum short-term temperature

<sup>2)</sup> No performance assessed

<sup>3)</sup> Increasing factor for  $N^0_{Rk,sp}$  only for Case 1

**Table C3: Characteristic values for tension loads, W-VIZ-A M16 – M24,  
static and quasi-static action**

Anchor size	W-VIZ-A	90 M16	105 M16	125 M16	145 M16	160 M16	115 M20	170 M20 (LG)	190 M20 (LG)	170 M24 (LG)	200 M24 (LG)	225 M24 (LG)
Installation factor	$\gamma_{\text{inst}}$	[ - ]						1,0				
<b>Steel failure</b>												
Characteristic tension resistance $N_{Rk,s}$	Steel, zinc plated A4, HCR	[kN]	88	95	111	97	96	188		222		
Partial factor	$\gamma_{Ms}$	[ - ]			1,5		1,68	1,5		1,5		
<b>Pull-out</b>												
Characteristic resistance (concrete C20/25)												
uncracked concrete	50°C/80°C <sup>1)</sup> 72°C/120°C <sup>1)</sup>	$N_{Rk,p}$	[kN]	42	52,9	68,8	75	90	60,7	109	128,8	109
			[kN]	25	35	50		53	40	75		95
cracked concrete	50°C/80°C <sup>1)</sup> 72°C/120°C <sup>1)</sup>	$N_{Rk,p}$	[kN]	29,4	37,1	48,1	60,1	69,7	42,5	76,3	90,2	76,3
			[kN]	25	30	50		51	30	60		75
<b>Splitting</b>												
Splitting for <b>standard thickness of concrete</b>												
Standard thickness of concrete	$h_{\min,1} \geq$	[mm]	180	200	250	290	320	230	340	380	340	400
<b>Case 1</b>												
Characteristic resistance (concrete C20/25)	$N^0_{Rk,sp}$	[kN]	40	50	60	80	60,7	109	115	109	139,1	140
<b>Case 2</b>												
Characteristic edge distance	$c_{cr,sp}$	[mm]			2 $h_{\text{ef}}$			1,5 $h_{\text{ef}}$	2 $h_{\text{ef}}$	1,5 $h_{\text{ef}}$	1,8 $h_{\text{ef}}$	
Splitting for <b>minimum thickness of concrete</b>												
Minimum thickness of concrete	$h_{\min,2} \geq$	[mm]	130	150	160	180	200	160	220	240	220	260
<b>Case 1</b>												
Characteristic resistance (concrete C20/25)	$N^0_{Rk,sp}$	[kN]	35	50	40	50	71	2)	75	109	115	
<b>Case 2</b>												
Characteristic edge distance	$c_{cr,sp}$	[mm]		2,5 $h_{\text{ef}}$	3 $h_{\text{ef}}$	2,5 $h_{\text{ef}}$	2,5 $h_{\text{ef}}$	2,6 $h_{\text{ef}}$	2,2 $h_{\text{ef}}$	2,6 $h_{\text{ef}}$	2,2 $h_{\text{ef}}$	
Increasing factor for $N_{Rk,p} = \psi_c \cdot N_{Rk,p}$ (C20/25) and $\Psi_c$ $N^0_{Rk,sp} = \psi_c \cdot N^0_{Rk,sp}$ (C20/25) <sup>3)</sup>								$\left(\frac{f_{ck}}{20}\right)^{0,5}$				
<b>Concrete cone failure</b>												
Effective anchorage depth	$h_{\text{ef}}$	[mm]	90	105	125	145	160	115	170	190	170	200
1) Maximum long-term temperature / Maximum short-term temperature												
2) No performance assessed												
3) Increasing factor for $N^0_{Rk,sp}$ only for Case 1												
<b>Injection System W-VIZ</b>												
<b>Performance</b> Characteristic values for tension loads, W-VIZ-A M16 – M24, static and quasi-static action										<b>Annex C3</b>		

**Table C4: Characteristic values for shear load, W-VIZ-A M8 – M12,  
static and quasi-static action**

Anchor size	W-VIZ-A		40 M8	50 M8	60 M10	75 M10	75 M12	70 M12	80 M12	95 M12	100 M12	110 M12	125 M12
Installation factor	$\gamma_{\text{inst}}$	[ - ]	1,0										
<b>Steel failure without lever arm</b>													
Characteristic resistance $V^0_{Rk,s}$	Steel, zinc plated A4, HCR	[kN]	14		21								34
Partial factor	$\gamma_{Ms}$	[ - ]	1,25										
Ductility factor	$k_7$	[ - ]	1,0										
<b>Steel failure with lever arm</b>													
Characteristic bending resistance $M^0_{Rk,s}$	Steel, zinc plated A4, HCR	[Nm]	30		60								105
Partial factor	$\gamma_{Ms}$	[ - ]	1,25										
<b>Concrete pry-out failure</b>													
Pry-out factor	$k_8$	[ - ]	2										
<b>Concrete edge failure</b>													
Effective length of anchor in shear load	$l_f$	[mm]	40	50	60	75	75	70	80	95	100	110	125
Outside diameter of anchor	$d_{\text{nom}}$	[mm]	10		12		12						14

**Injection System W-VIZ**

**Performance**

Characteristic values for shear load, W-VIZ-A M8 – M12,  
static and quasi-static action

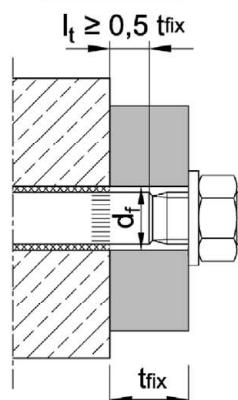
**Annex C4**

**Table C5: Characteristic values for shear load, W-VIZ-A M16 – M24,  
static or quasi-static action**

Anchor size	W-VIZ-A	90 M16	105 M16	125 M16	145 M16	160 M16	115 M20	170 M20 (LG)	190 M20 (LG)	170 M24 (LG)	200 M24 (LG)	225 M24 (LG)	
Installation factor	$\gamma_{\text{inst}}$	[ - ]						1,0					
<b>Steel failure without lever arm</b>													
Characteristic resistance $V^0_{Rk,s}$	Steel, zinc plated A4, HCR	[kN]		63			70	149 <sup>1)</sup> (98)		178 <sup>1)</sup> (141)			
		[kN]		63			86	131 <sup>1)</sup> (86)		156 <sup>1)</sup> (123)			
Partial factor	$\gamma_{Ms}$	[ - ]		1,25			1,4	1,25		1,25			
Ductility factor	$k_7$	[ - ]						1,0					
<b>Steel failure with lever arm</b>													
Characteristic bending resistance $M^0_{Rk,s}$	Steel, zinc plated A4, HCR	[Nm]		266			392	519		896			
		[Nm]		266				454		784			
Partial factor	$\gamma_{Ms}$	[ - ]		1,25			1,4	1,25		1,25			
<b>Concrete pry-out failure</b>													
Pry-out factor	$k_8$	[ - ]					2,0						
<b>Concrete edge failure</b>													
Effective length of anchor in shear load	$l_f$	[mm]	90	105	125	145	160	115	170	190	170	200	225
Outside diameter of anchor	$d_{\text{nom}}$	[mm]			18			22	24		24		26

<sup>1)</sup> This value may only be applied if  $l_t \geq 0,5 t_{\text{fix}}$

**M20 + M24:**



**Injection System W-VIZ**

**Performance**

Characteristic values for shear load, W-VIZ-A M16 – M24,  
static and quasi-static action

**Annex C5**

**Table C6: Characteristic values for seismic action,  
W-VIZ-A M10 – M12 performance category C1 and C2**

Anchor size	W-VIZ-A	60 M10	75 M10	75 M12	70 M12	80 M12	95 M12	100 M12	110 M12	125 M12
<b>Tension loads</b>										
Installation factor $\gamma_{\text{inst}}$ [-]										
<b>Steel failure, steel zinc plated, stainless steel A4, HCR</b>										
Characteristic resistance $N_{Rk,s,C1}$ $N_{Rk,s,C2}$	[kN]	25	35	49	54	57				
Partial factor $\gamma_{Ms}$ [-]					1,5					
<b>Pull-out (concrete C20/25 to C50/60)</b>										
Characteristic resistance $N_{Rk,p,C1}$ $N_{Rk,p,C2}$	50°C / 80°C <sup>1)</sup> [kN]	14,5	14,5	30,6	36,0	41,5	42,8			
	72°C / 120°C <sup>1)</sup> [kN]	10,9	10,9	20,0	30,0					
	50°C / 80°C <sup>1)</sup> [kN]	7,4	7,4	8,7	17,6					
	72°C / 120°C <sup>1)</sup> [kN]	5,1	5,1	6,5	12,3					

<b>Shear loads</b>										
<b>Steel failure without lever arm, steel zinc plated</b>										
Characteristic resistance $V_{Rk,s,C1}$ [kN] $V_{Rk,s,C2}$ [kN]										
Characteristic resistance		11,8			27,2					
		12,6			27,2					
Partial factor $\gamma_{Ms}$ [-]					1,25					
<b>Steel failure without lever arm, stainless steel A4, HCR</b>										
Characteristic resistance $V_{Rk,s,C1}$ $V_{Rk,s,C2}$	[kN]	12,9			27,2					
	[kN]	13,8			27,2					
Partial factor $\gamma_{Ms}$ [-]					1,25					
Factor for anchorage with filled annular gap unfilled annular gap	$\alpha_{\text{gap}}$ [-]				1,0					
	$\alpha_{\text{gap}}$ [-]				0,5					

<sup>1)</sup> Maximum long-term temperature / Maximum short-term temperature

<b>Injection System W-VIZ</b>	<b>Annex C6</b>
<b>Performance</b> Characteristic values for seismic action, W-VIZ-A M10 – M12, performance category C1 and C2	

**Table C7: Characteristic values for seismic action,  
W-VIZ-A M16 – M24, performance category C1 and C2**

Anchor size	W-VIZ-A	90 M16	105 M16	125 M16	145 M16	160 M16	115 M20	170 M20 (LG)	190 M20 (LG)	170 M24 (LG)	200 M24 (LG)	225 M24 (LG)
<b>Tension loads</b>												
Installation factor $\gamma_{\text{inst}}$ [-]												
<b>Steel failure, steel zinc plated</b>												
Characteristic resistance	$N_{Rk,s,C1}$ $N_{Rk,s,C2}$	[kN]	88	95	111	97	96	188		222		
<b>Steel failure, stainless steel A4, HCR</b>												
Characteristic resistance	$N_{Rk,s,C1}$ $N_{Rk,s,C2}$	[kN]	88	95	111	97	114	165		194		
Partial factor	$\gamma_{Ms}$	[-]			1,5		1,68	1,5		1,5		
<b>Pull-out (concrete C20/25 to C50/60)</b>												
Characteristic resistance	$N_{Rk,p,C1}$	50°C / 80°C <sup>1)</sup> [kN]	30,7	38,7	43,7	44,4	88,2	90,7				
		72°C / 120°C <sup>1)</sup> [kN]	25,0	30,0	38,5	29,4	55,8	59,3				
	$N_{Rk,p,C2}$	50°C / 80°C <sup>1)</sup> [kN]	16,3	22,1	26,1	30,9	59,7	59,7				
		72°C / 120°C <sup>1)</sup> [kN]	10,5	14,4	19,5	16,2	44,4	44,4				

<b>Shear loads</b>												
<b>Steel failure without lever arm, steel zinc plated</b>												
Characteristic resistance												
Characteristic resistance	$V_{Rk,s,C1}$ $V_{Rk,s,C2}$	[kN]			39,1	39,1	82,3	107				
Partial factor	$\gamma_{Ms}$	[-]			50,4	51	108,8 <sup>1)</sup> (71,5)	154,9 <sup>1)</sup> (122,7)				
<b>Steel failure without lever arm, stainless steel A4, HCR</b>												
Characteristic resistance												
Characteristic resistance	$V_{Rk,s,C1}$ $V_{Rk,s,C2}$	[kN]			39,1	39,1	72,2	93				
Partial factor	$\gamma_{Ms}$	[-]			50,4	62,6	95,6 <sup>1)</sup> (62,8)	135,7 <sup>1)</sup> (107)				
Factor for anchorages with filled annular gap	$\alpha_{gap}$	[-]			1,25	1,4	1,25	1,25				
Factor for anchorages with unfilled annular gap	$\alpha_{gap}$	[-]					0,5					

<sup>1)</sup> This value may only be applied if  $l_t \geq 0,5 t_{fix}$ , (see Annex C4)

### Injection System W-VIZ

#### Performance

Characteristic values for seismic action, W-VIZ-A M16 – M24, performance category C1 and C2

Annex C7

**Table C8: Displacements under tension loads, W-VIZ-A M8 – M12**

Anchor size	W-VIZ-A		40 M8	50 M8	60 M10	75 M10	75 M12	70 M12	80 M12	95 M12	100 M12	110 M12	125 M12									
Tension load in <b>cracked</b> concrete	N	[kN]	4,3	6,1	8,0	11,1	11,1	10,0	12,3	15,9	17,1	19,8	24,0									
Displacement	$\delta_{N0}$	[mm]	0,5		0,5	0,6	0,6				0,7											
	$\delta_{N\infty}$	[mm]	1,3																			
Tension load in <b>uncracked</b> concrete	N	[kN]	4,3	8,5	11,1	15,6	15,6	14,1	17,2	19,0	24,0	23,8	23,8									
Displacement	$\delta_{N0}$	[mm]	0,2	0,4	0,4		0,4				0,6											
	$\delta_{N\infty}$	[mm]	1,3																			
<b>Displacements under seismic tension loads C2</b>																						
Displacements for DLS	$\delta_{N,C2(DLS)}$	[mm]	no performance assessed	1,0		1,0		1,3		1,1												
Displacements for ULS	$\delta_{N,C2(ULS)}$	[mm]		3,0		3,0		3,9		3,0												

**Table C9: Displacements under tension loads, W-VIZ-A M16 – M24**

Anchor size	W-VIZ-A		90 M16	105 M16	125 M16	145 M16	160 M16	115 M20	170 M20 (LG)	190 M20 (LG)	170 M24 (LG)	200 M24 (LG)	225 M24 (LG)
Tension load in <b>cracked</b> concrete	N	[kN]	14,6	18,4	24,0	30,0	34,7	21,1	38,0	44,9	38,0	48,5	57,9
Displacement	$\delta_{N0}$	[mm]	0,7		0,8	1,2	0,7	0,8		0,8	0,9		
	$\delta_{N\infty}$	[mm]	1,3				1,6	1,1	1,3		1,3		
Tension load in <b>uncracked</b> concrete	N	[kN]	20,5	25,9	33,0	35,7	48,1	29,6	53,3	63,0	53,3	67,9	81,1
Displacement	$\delta_{N0}$	[mm]	0,6				0,8	0,5	0,6		0,6		
	$\delta_{N\infty}$	[mm]	1,3				1,6	1,1	1,3		1,3		
<b>Displacements under seismic tension loads C2</b>													
Displacements for DLS	$\delta_{N,C2(DLS)}$	[mm]	1,6		1,5		1,7	1,9		1,9			
Displacements for ULS	$\delta_{N,C2(ULS)}$	[mm]	3,7		4,4		4,0	4,5		4,5			

**Injection System W-VIZ**

**Performance**

Displacements under tension loads, W-VIZ-A

**Annex C8**

**Table C10: Displacements under shear loads W-VIZ-A M8 – M12**

Anchor size	W-VIZ-A		40 M8	50 M8	60 M10	75 M10	75 M12	70 M12	80 M12	95 M12	100 M12	110 M12	125 M12
Shear load	V	[kN]	8,3		13,3			19,3					
Displacements	$\delta_{v0}$	[mm]	2,4	2,5	2,9			3,3					
	$\delta_{v\infty}$	[mm]	3,6	3,8	4,4			5,0					
<b>Displacements under seismic shear loads C2</b>													
Displacements for DLS	$\delta_{v,C2(DLS)}$	[mm]	no performance assessed		2,1			2,5					
Displacements for ULS	$\delta_{v,C2(ULS)}$	[mm]			3,7			5,1					

**Table C11: Displacements under shear loads W-VIZ-A M16 – M24**

Anchor size	W-VIZ-A		90 M16	105 M16	125 M16	145 M16	160 M16	115 M20	170 M20 (LG)	190 M20 (LG)	170 M24 (LG)	200 M24 (LG)	225 M24 (LG)		
Shear load	V	[kN]	36					44	75 (49)		89 (71)				
Displacements	$\delta_{v0}$	[mm]	3,8					3,0	4,3 (3,0)		4,6 (3,5)				
	$\delta_{v\infty}$	[mm]	5,7					4,5	6,5 (4,5)		6,9 (5,3)				
<b>Displacements under seismic shear loads C2</b>															
Displacements for DLS	$\delta_{v,C2(DLS)}$	[mm]	2,9					3,5			3,7				
Displacements for ULS	$\delta_{v,C2(ULS)}$	[mm]	6,8					9,3			9,3				

**Injection System W-VIZ**

**Performance**

Displacements under shear loads, W-VIZ-A

**Annex C9**

**Table C12: Characteristic values for tension load, W-VIZ-IG**

Anchor size	W-VIZ-IG		40 M6	50 M6	60 M8	75 M8	70 M10	80 M10	90 M12	105 M12	125 M12	115 M16	170 M16	170 M20												
Installation factor	$\gamma_{inst}$	[ - ]	1,0																							
<b>Steel failure</b>																										
Characteristic resistance $N_{Rk,s}$	Steel, zinc plated A4, HCR	[kN]	15 A4, HCR	16	19	29	35		67		52	125	108													
Partial factor	$\gamma_{Ms}$	[ - ]	1,5																							
<b>Pull-out</b>																										
Characteristic resistance (concrete C20/25)																										
uncracked concrete	50°C / 80°C <sup>1)</sup>	$N_{Rk,p}$	[kN]	9	17,4	22,9	32	28,8	35,2	42	52,9	68,8	60,7	109												
	72°C / 120°C <sup>1)</sup>		[kN]	6	9	16	16	16	25	25	35	50	40	75												
cracked concrete	50°C / 80°C <sup>1)</sup>	$N_{Rk,p}$	[kN]	8,7	12,2	16	22,4	20,2	24,6	29,4	37,1	48,1	42,5	76,3												
	72°C / 120°C <sup>1)</sup>		[kN]	5	7,5	12	12	16	20	20	30	50	30	60												
<b>Splitting</b>																										
<b>Splitting for standard thickness of concrete</b>																										
Standard thickness of concrete $h_{min,1} \geq$	[mm]	100	120	150	140	160	180	200	250	230	340	340	340	340												
<b>Case 1</b>																										
Characteristic resistance (concrete C20/25)	$N^0_{Rk,sp}$	[kN]	7,5	9	16	20	20	35,2	40	50	50	60,7	109	109												
<b>Case 2</b>																										
Characteristic edge distance $c_{cr,sp}$	[mm]	3 $h_{ef}$	2,5 $h_{ef}$	3,5 $h_{ef}$	2,5 $h_{ef}$	1,5 $h_{ef}$		2 $h_{ef}$		1,5 $h_{ef}$	1,5 $h_{ef}$															
<b>Splitting for minimum thickness of concrete</b>																										
Minimum thickness of concrete $h_{min,2} \geq$	[mm]	80	100	110	110	130	150	160	160	220	220															
<b>Case 1</b>																										
Characteristic resistance (concrete C20/25)	$N^0_{Rk,sp}$	[kN]	7,5	<sup>2)</sup>	16	20	25	35	50	40	<sup>2)</sup>	75	109													
<b>Case 2</b>																										
Characteristic edge distance $c_{cr,sp}$	[mm]	3 $h_{ef}$	3,5 $h_{ef}$	3 $h_{ef}$	3,5 $h_{ef}$	3,5 $h_{ef}$	3 $h_{ef}$	2,5 $h_{ef}$	2,5 $h_{ef}$	3 $h_{ef}$	2,5 $h_{ef}$	2,6 $h_{ef}$	2,6 $h_{ef}$													
Increasing factor for $N_{Rk,p} = \psi_c \cdot N_{Rk,p}$ (C20/25) and $N^0_{Rk,sp} = \psi_c \cdot N^0_{Rk,sp}$ (C20/25) <sup>3)</sup>	$\psi_c$	[ - ]	$\left(\frac{f_{ck}}{20}\right)^{0,5}$																							
<b>Concrete cone failure</b>																										
Effective anchorage depth	$h_{ef}$	[mm]	40	50	60	75	70	80	90	105	125	115	170	170												

<sup>1)</sup> Maximum long-term temperature / Maximum short-term temperature

<sup>2)</sup> No performance assessed

<sup>3)</sup> Increasing factor for  $N^0_{Rk,sp}$  only for Case 1

### Injection System W-VIZ

#### Performance

Characteristic values for tension loads, **W-VIZ-IG**

#### Annex C10

**Table C13: Characteristic values for shear load, W-VIZ-IG**

Anchor size	W-VIZ-IG	40 M6	50 M6	60 M8	75 M8	70 M10	80 M10	90 M12	105 M12	125 M12	115 M16	170 M16	170 M20
Installation factor	$\gamma_{\text{inst}}$	[ - ]											1,0
<b>Steel failure without lever arm</b>													
Characteristic resistance $V^0_{Rk,s}$													
Steel, zinc plated	[kN]	8,0		9,5	15		18		34		26	63	54
A4, HCR	[kN]	5,5		9,5	10		16		24		32	44	47
Partial factor	$\gamma_{Ms}$	[ - ]											1,25
Ductility factor	$k_7$	[ - ]											1,0
<b>Steel failure with lever arm</b>													
Characteristic bending resistance $M^0_{Rk,s}$	Steel, zinc plated	[kN]	12		30		60		105		212	266	519
A4, HCR	[kN]	8,5		21		42		74		187	187		365
Partial factor	$\gamma_{Ms}$	[ - ]											1,25
<b>Concrete pry-out failure</b>													
Pry-out factor	$k_8$	[ - ]											2,0
<b>Concrete edge failure</b>													
Effective length of anchor in shear load	$l_f$	[mm]	40	50	60	75	70	80	90	105	125	115	170
Outside diameter of anchor	$d_{\text{nom}}$	[mm]	10		12		14		18		22	24	26

**Table C14: Displacements under tension loads, W-VIZ-IG**

Anchor size	W-VIZ-IG	40 M6	50 M6	60 M8	75 M8	70 M10	80 M10	90 M12	105 M12	125 M12	115 M16	170 M16	170 M20	
Tension load in cracked concrete	N	[kN]	4,3	6,1	8,0	11,1	10,0	12,3	14,6	18,4	24,0	21,1	38,0	38,0
Displacement	$\delta_{N0}$	[mm]	0,5		0,5	0,6		0,6		0,7		0,7	0,8	0,8
	$\delta_{N\infty}$	[mm]										1,1	1,3	1,3
Tension load in uncracked concrete	N	[kN]	4,3	8,5	11,1	15,6	14,1	17,2	20,5	25,9	33,0	29,6	53,3	53,3
Displacement	$\delta_{N0}$	[mm]	0,2	0,4	0,4		0,4		0,6		0,6	0,5	0,6	0,6
	$\delta_{N\infty}$	[mm]										1,1	1,3	1,3

**Table C15: Displacements under shear loads, W-VIZ-IG**

Anchor size	W-VIZ-IG	40 M6	50 M6	60 M8	75 M8	70 M10	80 M10	90 M12	105 M12	125 M12	115 M16	170 M16	170 M20	
Shear load Steel, zinc plated	V	[kN]	4,6		5,4	8,4		10,1		19,3		14,8	35,8	30,7
Displacement	$\delta_{V0}$	[mm]	0,4		0,5	0,4		0,5		1,2		0,8	1,9	1,2
	$\delta_{V\infty}$	[mm]	0,7		0,8	0,7		0,8		1,9		1,2	2,8	1,9
Shear load Stainless steel A4 / HCR	V	[kN]	3,2		5,4	5,9		9,3		13,5		18,5	25,2	26,9
Displacement	$\delta_{V0}$	[mm]	0,3		0,5	0,3		0,5		0,9		1,0	1,4	1,1
	$\delta_{V\infty}$	[mm]	0,4		0,7	0,5		0,7		1,4		1,5	2,1	1,6

#### Injection System W-VIZ

Performance  
Characteristic values for shear load W-VIZ-IG, Displacements W-VIZ-IG

Annex C11

## ДЕКЛАРАЦИЯ ЗА ЕКСПЛОАТАЦИОННИ ПОКАЗАТЕЛИ

№ LE\_0905440811\_05\_M\_W-VIZ

Настоящият текст е превод от немски на български.

В случаи на съмнение важи оригиналът на немски.

1. Уникален идентификационен код на типа на продукта: Würth Injektionssystem W-VIZ (Würth инжекционна система W-VIZ)  
Арт. №: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(с изключение на следните артикули: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
2. Предвидена употреба/употреби: Verbunddübel zur Verankerung im Beton (Свързващ дюбел за закотвяне в бетон)
3. Производител: Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
4. Система (и) за оценка и проверка на постоянното на експлоатационните показатели: Система 1
5. Европейски документ за оценяване:  
Европейска техническа оценка:  
Орган за техническа оценка:  
Нотифициран(и) орган(и): EAD 330499-01-0601, издание 04/2020  
ETA-04/0095 21 юли 2023 г.  
Deutsches Institut für Bautechnik (DIBt), Berlin  
2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Деклариран(и) експлоатационен(и) показател(и):

Основни характеристики	Експлоатационни показатели	Хармонизирана техническа спецификация
<b>Механична якост и устойчивост (BWR 1)</b>		
Характерно съпротивление на натоварване на опън (статични и квазистатични товари)	Вижте приложение C1 - C3, B5 - B6	
Характерно съпротивление при напречно натоварване (статични и квазистатични товари)	Вижте приложение C4 - C5, C11	
Измествания за краткотрайно и дълготрайно натоварване	Вижте приложение C8 - C9, C11	
Характерно съпротивление и измествания за сейзмична категория експлоатационни характеристики C1 и C2	Вижте приложение C6 - C9	
<b>Хигиена, здравеопазване и опазване на околната среда (BWR 3)</b>		
Съдържание, емисия и/или освобождаване на опасни вещества	Експлоатационният показател не е оценяван	ETA-04/0095 EAD 330499-01-0601



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

Подписана за производителя и от името на производителя от:

В оригинал подписана от:

---

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

В оригинал подписана от:

---

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

Кюнцелзау, 21.7.2023 г.

## PROHLÁŠENÍ O VLASTNOSTECH

**Č. LE\_0905440811\_05\_M\_W-VIZ**

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

- 1. Jednoznačný identifikační kód typu výrobku:**  
Injekční systém Würth W-VIZ  
Č. výr.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(s výjimkou následujících výrobků: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Zamýšlené/zamýšlená použití:**  
Chemická kotva pro ukotvení v betonu
- 3. Výrobce:**  
Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. Systém(y) pro hodnocení a kontrolu stálosti vlastností:**  
Systém 1
- 5. Evropský dokument pro posuzování:**  
Evropské technické posouzení:  
Subjekt pro technické posuzování:  
  
**Oznámený subjekt/oznámené subjekty:**  
EAD 330499-01-0601, vydání 04/2020  
ETA-04/0095 z 21. července 2023  
Deutsches Institut für Bautechnik, Berlin (DIBt, Německý institut pro stavební techniku v Berlíně)  
2873, Institut für Stahlbau und Werkstoffmechanik (IIFSW), Darmstadt
- 6. Deklarovaná vlastnost/Deklarované vlastnosti:**

<b>Podstatné charakteristické vlastnosti</b>	<b>Výkon</b>	<b>Harmonizovaná technická specifikace</b>
<b>Mechanická pevnost a stálosť (BWR 1)</b>		
Charakteristická odolnosť pri namáháni tahom (statické a kvazistatické zátěže)	Viz prílohu C1 – C3, C10, B5 – B6	
Charakteristická odolnosť pri příčném zatížení (statické a kvazistatické zátěže)	Viz prílohu C4 – C5, C11	
Posuny pri krátkodobém a dlouhodobém zatížení	Viz prílohu C8 – C9, C11	
Charakteristická odolnosť a posuny pro seismické kategorie C1 a C2	Viz prílohu C6 – C9	
<b>Hygiena, zdraví a ochrana životního prostředí (BWR 3)</b>		
Obsah, emise a/nebo uvolňování nebezpečných látek	Vlastnosť není hodnocená	ETA-04/0095 EAD 330499-01-0601



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

Podepsal za výrobce a jeho jménem:

V originále podepsal:

---

Frank Wolpert  
(zmocněnec - vedoucí oddělení  
produk, divize, marketing)

V originále podepsal:

---

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

Künzelsau, 21. července 2023

## YDEEVNEDEKLARATION

**Nr. LE\_0905440811\_05\_M\_W-VIZ**

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

- 1. Produkttypens entydige identifikationskode:**

Würth injektionssystem W-VIZ  
 Art.-nr.: 090544000\*; 090342030\*;  
 090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
 (med undtagelse af nedenstående artikler: 5916108999; 5916110999;  
 5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
 5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)

- 2. Anvendelsesformål:**

- 3. Producent:**

Adolf Würth GmbH & Co. KG  
 Reinhold-Würth-Str. 12 - 17  
 D - 74653 Künzelsau

- 4. System(er) til bedømmelse og kontrol af ydeevnebestandigheden:**

EAD 330499-01-0601, Edition 04/2020  
 ETA-04/0095 af 21. juli 2023  
 Deutsches Institut für Bautechnik (DIBt), Berlin  
 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt

- 5. Europæisk vurderingsdokument:  
 Europæisk teknisk bedømmelse:  
 Teknisk evaluering myndighed:  
 Notificeret myndighed/notificerede myndigheder:**

- 6. Deklareret ydeevne/deklarerede ydeevner:**

Væsentlige egenskaber	Ydelse	Harmoniseret teknisk specifikation
<b>Mekanisk modstandsdygtighed og stabilitet (BWR 1)</b>		
Karakteristisk modstand under trækbelastning (statiske og kvasistatiske belastninger)	Se appendiks C1 – C3, C10, B5 – B6	
Karakteristisk modstand under tværlast (statiske og kvasistatiske belastninger)	Se appendiks C4 – C5, C11	
Forskydninger under korttids- og langtidsbelastning	Se appendiks C8 – C9, C11	ETA-04/0095 EAD 330499-01-0601
Karakteristisk modstand og forskydninger til seismiske effektkategorier C1 og C2	Se appendiks C6 – C9	
<b>Hygiejne, sundhed og miljøbeskyttelse (BWR 3)</b>		
Indhold, emission og/eller frigørelse af farlige stoffer	Ydelse ikke evalueret	



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

Underskrevet for og på vegne af producenten af:

Originalen underskrevet af:

---

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

Originalen underskrevet af:

---

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

Künzelsau, den 21.07.2023

## LEISTUNGSERKLÄRUNG

**Nr. LE\_0905440811\_05\_M\_W-VIZ**

- 1. Eindeutiger Kenncode des Produkttyps:** Würth Injektionssystem W-VIZ  
Art.-Nr.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(ausgenommen nachstehende Artikel: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Verwendungszweck(e):** Verbunddübel zur Verankerung im Beton
- 3. Hersteller:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. System(e) zur Bewertung und Überprüfung der Leistungsbeständigkeit:** System 1
- 5. Europäisches Bewertungsdokument:** EAD 330499-01-0601, Edition 04/2020  
**Europäische Technische Bewertung:** ETA-04/0095 vom 21. Juli 2023  
**Technische Bewertungsstelle:** Deutsches Institut für Bautechnik (DIBt), Berlin  
**Notifizierte Stelle(n):** 2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
- 6. Erklärte Leistung(en):**

<b>Wesentliche Merkmale</b>	<b>Leistung</b>	<b>Harmonisierte technische Spezifikation</b>
<b>Mechanische Festigkeit und Standsicherheit (BWR 1)</b>		
Charakteristischer Widerstand unter Zugbeanspruchung (statische und quasi-statische Lasten)	Siehe Anhang C1 – C3, C10, B5 – B6	
Charakteristischer Widerstand unter Querlast (statische und quasi-statische Lasten)	Siehe Anhang C4 – C5, C11	
Verschiebungen für Kurzzeit- und Langzeitbelastung	Siehe Anhang C8 – C9, C11	ETA-04/0095 EAD 330499-01-0601
Charakteristischer Widerstand und Verschiebungen für die seismischen Leistungskategorien C1 und C2	Siehe Anhang C6 – C9	
<b>Hygiene, Gesundheit und Umweltschutz (BWR 3)</b>		
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

A black ink signature of the name "Frank Wolpert".

Frank Wolpert  
28.09.2023 15:16:28 [UTC+2]

(Prokurist – Bereichsleiter Produkt,  
Divisionen, Marketing)

A blue ink signature of the name "Siegfried Beichter".

Siegfried Beichter  
10.10.2023 16:57:05 [UTC+2]

(Prokurist - Leiter Produktsicherheit)

Künzelsau, den 21.07.2023

## DECLARACIÓN DE PRESTACIONES

**N.º LE\_0905440811\_05\_M\_W-VIZ**

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

- 1. Código de identificación única del producto tipo:** Sistema de inyección W-VIZ  
Nº de art.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(quedan exceptuados los artículos siguientes: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Uso(s) previsto(s):** Taco químico para anclaje en hormigón
- 3. Fabricante:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. Sistema(s) de evaluación y verificación de la constancia de las prestaciones:** Sistema 1
- 5. Documento de evaluación europeo:** EAD 330499-01-0601, edición 04/2020  
**Evaluación Técnica Europea:** ETA-04/0095 – del 21 de julio de 2023  
**Organismo de Evaluación Técnica:** Deutsches Institut für Bautechnik (DIBt, Instituto Alemán de Tecnología de la Construcción), Berlín
- Organismo(s) notificado(s):** 2873, Institut für Stahlbau und Werkstoffmechanik (IIFSW, Instituto para la construcción de acero y mecánica de materiales), Darmstadt
- 6. Prestaciones declaradas:**

<b>Características esenciales</b>	<b>Prestación</b>	<b>Especificación técnica armonizada</b>
<b>Resistencia mecánica y estabilidad (BWR 1)</b>		
Resistencia característica bajo esfuerzo de tracción (cargas estáticas y cuasiestáticas)	Véanse los anexos C1 – C3, C10, B5 – B6	
Resistencia característica bajo carga transversal (cargas estáticas y cuasiestáticas)	Véanse los anexos C4 – C5, C11	
Desplazamientos para esfuerzo a corto y largo plazo	Véanse los anexos C8 – C9, C11	
Resistencia característica y desplazamientos para las categorías de actividad sísmicas C1 y C2	Véanse los anexos C6 – C9	
<b>Higiene, salud y protección medioambiental (BWR 3)</b>		
Contenido, emisión y liberación de sustancias peligrosas	Prestación no evaluada	ETA-04/0095 EAD 330499-01-0601



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:

Firmante del original:

---

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

Firmante del original:

---

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

Künzelsau, el 21/07/2023

## TOIMIVUSDEKLARATSIOON

**Nr. LE\_0905440811\_05\_M\_W-VIZ**

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

- 1. Tootetüibi kordumatu identifitseerimiskood:** Würthi ankurdussüsteem W-VIZ  
Art-nr: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
välja arvatud järgmised artiklid: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Kavandatud kasutusotstarve (-otstarbed):** Sidumisankur kinnitamiseks betooni
- 3. Tootja:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. Toimivuse püsivuse hindamise ja kontrolli süsteem(id):** Süsteem 1
- 5. Euroopa hindamisdokument:** EAD 330499-01-0601, 04/2020  
**Euroopa tehniline hinnang:** ETA-04/0095, 21.07.2023  
**Tehnilise hindamise asutus:** Deutsches Institut für Bautechnik (DIBt), Berliin  
**Teavitatud asutus(ed):** 2873, Institut für Stahlbau und Werkstoffmechanik (IWSW), Darmstadt
- 6. Deklareeritud toimivus(ed):**

<b>Põhiomadused</b>	<b>Toimivus</b>	<b>Ühtlustatud tehniline kirjeldus</b>
<b>Mehaaniline tugevus ja vastupidavus (BWR 1)</b>		
Iseloomulik vastupanu tõmbejõule (staatilised ja kvaasistaatilised koormused)	Vt lisa C1-C3, C10, B5-B6	
Iseloomulik vastupanu põikkoormuse all (staatiline ja poolstaatiline koormus):	Vt lisa C4-C5, C11	
Nihked lühi- ja pikajalisel koormamisel	Vt lisa C8-C9, C11	ETA-04/0095 EAD 330499-01-0601
Iseloomulik vastupanu ja nihked seisniliste toimivuskategooriate C1 ja C2 puhul	Vt lisa C6-C9	
<b>Hügieen, tervishoid ja keskkonnakaitse (BWR 3)</b>		
Ohtlike ainete sisaldus, eraldamine ja/või vabanemine	Toimivus hindamata	

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

Tootja poolt ja nimel allkirjastanud:

Originaali allkirjastanud:

---

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

Originaali allkirjastanud:

---

Dr ins Siegfried Beichter  
(prokurist – tooteohutuse juht)

Künzelsau, 21.07.2023

## SUORITUSTASOILMOITUS

**Nro LE\_0905440811\_05\_M\_W-VIZ**

Tämä on käänös saksankielisestä.  
Epäilyksissä pätee saksankielinen alkuperäisilmoitus.

- 1. Tuotetyypin yksilöllinen tunniste:** Würth injektiójärjestelmä W-VIZ  
Tuote-nrot: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(Lukuun ottamatta seuraavia tuotteita: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Aiottu käyttötarkoitus (aiotut käyttötarkoitukset):** Vaarnaruuvi betoniin ankkuroimiseksi
- 3. Valmistaja:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12-17  
D - 74653 Künzelsau, Saksa
- 4. Suoritustason arvioinnin ja tarkistamisen järjestelmä(t):** Järjestelmä 1
- 5. Eurooppalainen arvointidokumentti:** EAD 330499-01-0601, julkaisu 04/2020  
**Eurooppalainen tekninen arviointi:** ETA-04/0095 21.07.2023  
**Teknisestä arvioinnista vastaava laitos:** Deutsches Institut für Bautechnik (DIBt; Saksan rakennustekninen instituutti), Berlini  
**Ilmoittettu laitos / ilmoitetut laitokset:** 2873, Institut für Stahlbau und Werkstoffmechanik (IIFSW; teräsrakenneteollisuuden ja materiaalimekaanikan instituutti), Darmstadt
- 6. Ilmoittettu suoritustaso/ilmoitetut suoritustasot:**

Perusominaisuudet	Suoritustaso	Yhdenmukaistetut tekniset eritelmat
<b>Mekaaninen lujuus ja vakaus (BWR 1)</b>		
Ominaisvastus vetokuormituksessa (staattiset ja kvasistaattiset kuormat)	Katso liitteet C1–C3, C10, B5–B6	
Ominaisvastus poikittaiskuormituksessa (staattiset ja kvasistaattiset kuormat)	Katso liitteet C4–C5, C11	
Siirtymä lyhytaikaisessa ja pitkäaikaisessa kuormituksessa	Katso liitteet C8–C9, C11	ETA-04/0095 EAD 330499-01-0601
Ominaisvastus ja siirtymät seismisille teholuokille C1 ja C2	Katso liitteet C6–C9	
<b>Hygienia, terveys ja ympäristönsuojelu (BWR 3)</b>		
Vaarallisten aineiden sisältö, päästöt ja/tai vapautuminen	Suoritustasoa ei arvioitu	



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

Valmistajan puolesta allekirjoittanut:

Alkuperäisen asiakirjan allekirjoittanut:

---

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

Alkuperäisen asiakirjan allekirjoittanut:

---

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

Künzelsau, 21.07.2023

## DÉCLARATION DES PERFORMANCES

N° LE\_0905440811\_05\_M\_W-VIZ

Il s'agit ici de la version traduite à partir de l'allemand.

En cas de doute, l'original allemand fait foi.

1. **Code d'identification unique du produit type :** Système à injecter Würth W-VIZ  
N° d'art. 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(les articles suivants ne sont pas concernés : 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
2. **Usage ou usages prévu(s) :** Cheville composite d'ancrage dans le béton
3. **Fabricant :** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
4. **Système(s) d'évaluation et de vérification de la constance des performances :** Système 1
5. **Document d'évaluation européen :** EAD 330499-01-0601, édition 04/2020  
**Évaluation technique européenne :** ETA-04/0095 du 21/07/2023  
**Organisme d'évaluation technique :** Deutsches Institut für Bautechnik (DIBt), Berlin  
**Organisme(s) notifié(s) :** 2873, Institut für Stahlbau und Werkstoffmechanik (Institut pour la construction acier et la mécanique des matériaux – IFSW), Darmstadt
6. **Performance(s) déclarée(s) :**

<b>Caractéristiques essentielles</b>	<b>Performance</b>	<b>Spécification technique harmonisée</b>
<b>Résistance mécanique et stabilité (BWR 1)</b>		
Résistance caractéristique sous contrainte de traction (charges statiques et quasi-statiques)	Voir annexes C1 - C3, C10, B5 - B6	
Résistance caractéristique sous charge transversale (charges statiques et quasi-statiques)	Voir annexes C4 - C5, C11	
Déplacements sous contrainte de courte et de longue durée	Voir annexes C8 - C9, C11	ETA-04/0095 EAD 330499-01-0601
Résistance caractéristique et déplacements pour les catégories de performance sismique C1 et C2	Voir annexes C6 - C9	
<b>Hygiène, santé et environnement (BWR 3)</b>		
Dégagement de substances dangereuses	Performance non évaluée	

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

Signée pour le fabricant et en son nom par :

Original signé par :

---

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

Original signé par :

---

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

Künzelsau, le 21/07/2023

## DEARBHÚ FEIDHMÍOCHTA

**Uimh. LE\_0905440811\_05\_M\_W-VIZ**

Is é seo an leagan a aistríodh ón nGearmáin.

Má tá aon amhras ort tá feidhm ag an bunleagan Gearmáinise.

1. Cód aitheantaí uathúil an chineál  
táirge:  
  
Córas insteallta W-VIZ  
Uimh. Earrá: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(ach amháin na hearraí seo a leanas: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
2. Úsáid(i) b(h)eartaithe:  
  
Ancaire nasctha le haghaidh ancaireachta i gcoincréit
3. Monaróir:  
  
Adolf Würth GmbH & Co KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
4. Cór(a)i)s chun seasmhacht feidhmíochta  
a mheas agus a scrúdú:  
  
Córas 1
5. Doiciméad Measúnaithe Eorpach:  
Measúnú Teicniúil Eorpach:  
Ionad Measúnaithe Teicniúil:  
  
Iona(i)d dá dtugtar fógra:  
  
EAD 330499-01-0601, Eagrán 04/2020  
ETA-04/0095 den 21. Iúil 2023  
Deutsches Institut für Bautechnik, DIBt (Ionad Teicníochta Tógála na  
Gearmáine), Beirlín  
2873, An Institiúid um Fhoirgníocht Chruaiche agus Meicnic Ábhar (IFSW),  
Darmstadt
6. Feidhmíocht(aí) d(h)earbhaithé:

<b>Príomhthréithe</b>	<b>Feidhmíocht</b>	<b>Sonraíocht theicniúil chomhchuibhithe</b>
<b>Friotaíocht agus Cobhsaíocht Mheicniúil (BWR 1)</b>		
Friotaíocht shaintréitheach faoi ualach tarraigthe le haghaidh ualaí statacha agus cuasastatacha)	Féach Agusín C1 – C3, C10, B5 – B6	
Friotaíocht shaintréitheach faoi ualach trasna (ualaí statacha agus cuasastatacha)	Féach Agusín C4 – C5, C11	
Athruithe ar nochtadh gearrthéarmach agus fadléarmach	Féach iarscríbhinn C8 agus C9, C11	ETA-04/0095 EAD 330499-01-0601
Friotaíocht shaintréitheach agus aistríthe do chatagóirí feidhmíochta seismí C1 agus C2	Féach iarscríbhinn C6 - C9	
<b>Sláintíocht, Sláinte agus Cosaint Comhshaoil (BWR 3)</b>		
Ábhar, astú agus/nó scaoileadh substaintí guaiseacha	Níor measadh an fheidhmíocht	

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

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

Leagan bunaidh síniithe ag:

---

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

Leagan bunaidh síniithe ag:

---

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

Künzelsau, 21/07/2023

## ΔΗΛΩΣΗ ΕΠΙΔΟΣΕΩΝ

**Αρ. LE\_0905440811\_05\_M\_W-VIZ**

Το παρόν είναι μετάφραση από τη γερμανική έκδοση.

Σε περίπτωση ενδοιασμών, ισχύει το γερμανικό πρωτότυπο.

- 1. Μοναδικός κωδικός ταυτοποίησης του προϊόντος:** Σύστημα έγχυσης Würth W-VIZ  
Αρ. τεμ.: 090544000\*, 090342030\*,  
090544\*, 090545\*, 59161\*, 59162\*, 5916410\*, 5916411\*  
(εκτός των παρακάτω ειδών: 5916108999, 5916110999, 5916112999,  
5916116999, 5916120999, 5916124999, 5916208999, 5916210999,  
5916212999, 5916216999, 090545030\*, 090545040\*)
- 2. Προτεινόμενη(-ες) χρήση(-εις):** Συνδετικός πείρος για αγκύρωση σε μπετόν
- 3. Κατασκευαστής:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. Σύστημα(τα) αξιολόγησης και επαλήθευσης της σταθερότητας της απόδοσης:** Σύστημα 1
- 5. Ευρωπαϊκό έντυπο αξιολόγησης:** EAD 330499-01-0601, έκδοση 04/2020  
**Ευρωπαϊκή Τεχνική Αξιολόγηση:** ETA-04/0095 από Παρασκευή, 21 Ιουλίου 2023  
**Τεχνική υπηρεσία αξιολόγησης:** Deutsches Institut für Bautechnik (DIBt), Berlin (Γερμανικό ίνστιτούτο για οικοδομική τεχνολογία (DIBt), Βερολίνο)  
**Κοινοποιημένος (-οι) οργανισμός (-οι):** 2873, Institut für Stahlbau und Werkstoffmechanik (IIFSW), Darmstadt
- 6. Δηλωμένη (-ες) επίδοση (-εις):**

Ουσιώδη χαρακτηριστικά	Απόδοση	Εναρμονισμένη τεχνική προδιαγραφή
<b>Μηχανική αντοχή και ευστάθεια (BWR 1)</b>		
Χαρακτηριστική αντίσταση υπό εφελκυστική καταπόνηση (στατικά και οιονεί στατικά φορτία)	Βλέπε παράρτημα C1 – C3, C10, B5 – B6	
Χαρακτηριστική αντίσταση υπό εγκάρσιο φορτίο (στατικά και οιονεί στατικά φορτία)	Βλέπε παράρτημα C4 – C5, C11	
Μετατοπίσεις υπό σύντομης ή μεγάλης διάρκειας φορτίο	Βλέπε παράρτημα C8 – C9, C11	ETA-04/0095 EAD 330499- 01-0601
Χαρακτηριστική αντίσταση και μετατοπίσεις για τις σεισμικές κατηγορίες ισχύος C1 και C2	Βλέπε παράρτημα C6 – C9	
<b>Υγιεινή, υγεία και περιβαλλοντική προστασία (BWR 3)</b>		
Περιεχόμενο, εκπομπή και/ή απελευθέρωση επικίνδυνων ουσιών	Μη αξιολογημένη απόδοση	

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

Υπογράφεται για τον κατασκευαστή και στο όνομα του κατασκευαστή από:

Στο πρωτότυπο υπογράφεται από:

---

Frank Wolpert  
(Γενικός εμπορικός πληρεζούσιος -  
Διευθυντής τμήματος προϊόντων,  
τομέων και μάρκετινγκ)

Στο πρωτότυπο υπογράφεται από:

---

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

Künzelsau, 21/07/2023

## IZJAVA O SVOJSTVIMA

**Br. LE\_0905440811\_05\_M\_W-VIZ**

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

- 1. Jedinstvena identifikacijska oznaka tipa proizvoda:** Würth injekcijski sustav W-VIZ  
Br. art.: 090544000\*; 090342030\*;  
090544; 090545; 59161; 59162; 5916410; 5916411;  
(osim sljedećih artikala: 5916108999; 5916110999; 5916112999;  
5916116999; 5916120999; 5916124999; 5916208999; 5916210999;  
5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Namjena(e):** Spojni zatik 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 stalnosti svojstava:** Sustav 1
- 5. Europski dokument za ocjenjivanje:** EAD 330499-01-0601, izdanje 04/2020  
**Europska tehnička ocjena:** ETA-04/0095 od 21. srpnja 2023.  
**Tijelo za tehničku ocjenu:** Deutsches Institut für Bautechnik (DIBt), Berlin  
**Prijavljeno tijelo/a:** 2873, Institut za čelične konstrukcije i mehaniku materijala (IFSW), Darmstadt
- 6. Navedeno svojstvo/a:**

<b>Bitna obilježja</b>	<b>Svojstvo</b>	<b>Usklađene tehničke specifikacije</b>
<b>Mehanička čvrstoća i stabilnost (BWR 1)</b>		
Karakteristični otpor pri uzdužnom opterećenju (statični i kvazistatični tereti)	Vidi pravitak C1 – C3, C10, B5 – B6	
Karakteristični otpor pri poprečnom teretu (statični i kvazistatični tereti)	Vidi pravitak C4 – C5, C11	
Pomicanje pri kratkotrajnom i dugotrajnom opterećenju	Vidi pravitak C8 – C9, C11	ETA-04/0095 EAD 330499-01-0601
Karakteristični otpor i pomicanje za kategorije seizmičkog učinka C1 i C2	Vidi pravitak C6 – C9	
<b>Higijena, zdravlje i zaštita okoliša (BWR 3)</b>		
Sadržaj, emisije i/ili oslobođanje opasnih tvari	Svojstvo nije ocijenjeno	



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

Potpisano za i u ime proizvođača od strane:

Originalni dokument potpisao/la:

---

Frank Wolpert  
(Prokurist – voditelj proizvoda, odjela,  
marketinga)

Originalni dokument potpisao/la:

---

Dr. -Ing. Siegfried Beichter  
(Prokurist – voditelj odjela za sigurnost  
proizvoda)

Künzelsau, 21.7.2023.

## TELJESÍTMÉNYNYILATKOZAT

**Sz. LE\_0905440811\_05\_M\_W-VIZ**

**Ez a német nyelvről lefordított változat.**

**Elterés esetén a német eredetit kell érvényesnek tekinteni.**

- 1. Terméktípus egyértelmű azonosító kódja:** Würth W-VIZ injekciós rendszer  
Cikkszám: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(a következő cikkek kivételével: 5916108999; 5916110999; 5916112999;  
5916116999; 5916120999; 5916124999; 5916208999; 5916210999;  
5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Felhasználási cél(ok):** Kötőanyaggal rögzített horgony betonban való horgonyzáshoz
- 3. Gyártó:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. A teljesítményállandóság értékelésére és ellenőrzésére szolgáló rendszer(ek):** 1-as rendszer
- 5. Európai értékelési dokumentum:** EAD 330499-01-0601, 2020/04-es kiadás  
**Európai Műszaki Értékelés:** ETA-04/0095, 2023.07.21.  
**Műszaki értékelő szervezet:** Deutsches Institut für Bautechnik (DIBt), Berlin  
**Bejelentett szerv(ek):** 2873, Institut für Stahlbau und Werkstoffmechanik (IIFSW), Darmstadt
- 6. Nyilatkozatban szereplő teljesítmény(ek):**

Lényeges jellemzők	Teljesítmény	Harmonizált műszaki specifikáció
<b>Mechanikai szilárdság és állékonysság (BWR 1)</b>		
Jellemző ellenállás húzó igénybevétel esetén (statikus és kvázi-statikus terhek)	Lásd a C1 – C3, C10, B5 – B6 mellékletet	
Jellemző ellenállás keresztfirányú terhelés alatt (statikus és kvázi-statikus terhek)	Lásd a C4 – C5, C11 mellékletet	
Elmozdulások rövid idejű és hosszú idejű terhelés esetén	Lásd a C8 – C9, C11 mellékletet	
Jellemző ellenállás és elmozdulások a C1 és C2 szeizmikus teljesítménykategória esetén	Lásd a C6 – C9 mellékletet	
<b>Higiénia, egészség és környezetvédelem (BWR 3)</b>		
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 kizárolag a fent nevezett gyártó felelőssége.

A gyártó képviseletében és névében aláírta:

Az eredeti példányt aláírta:

---

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

Az eredeti példányt aláírta:

---

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

Künzelsau, 2023.07.21.

## DICHIARAZIONE DI PRESTAZIONE

**N. LE\_0905440811\_05\_M\_W-VIZ**

**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 W-VIZ (Ancorante chimico - sistema ad iniezione Würth W-VIZ)  
Art. n.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(eccetto gli articoli seguenti: 5916108999; 5916110999; 5916112999;  
5916116999; 5916120999; 5916124999; 5916208999; 5916210999;  
5916212999; 5916216999; 090545030\*; 090545040\*)
2. Utilizzo/i previsto/i:  
Tassello chimico per l'ancoraggio in calcestruzzo
3. Azienda produttrice:  
Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
4. Sistema/i di valutazione e verifica della prestazione:  
Sistema 1
5. Documento per la Valutazione Europea:  
Valutazione tecnica europea:  
Organismo di valutazione tecnica:  
Organismo/i notificato/i:  
EAD 330499-01-0601, edizione 04/2020  
ETA-04/0095 del 21 luglio 2023  
Deutsches Institut für Bautechnik (DIBt), Berlino  
2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
6. Prestazione/i dichiarata/e:

<b>Caratteristiche essenziali</b>	<b>Prestazione</b>	<b>Norma tecnica armonizzata</b>
<b>Resistenza meccanica e stabilità (BWR 1)</b>		
Resistenza caratteristica a trazione (carichi statici e quasi statici)	Si vedano Allegati C1 – C3, C10, B5 – B6	
Resistenza caratteristica sotto carico trasversale (carichi statici e quasi statici)	Si vedano Allegati C4 – C5, C11	
Variazioni per carichi a breve e lungo termine	Si vedano Allegati C8 – C9, C11	ETA-04/0095 EAD 330499-01-0601
Resistenza caratteristica e variazioni per le categorie sismiche C1 e C2	Si vedano Allegati C6 – C9	
<b>Igiene, salute e ambiente (BWR 3)</b>		
Contenuto, emissione e/o rilascio di sostanze pericolose	Prestazione non valutata	



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

Firmato a nome e per conto del fabbricante da:

Firmato in originale da:

---

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

Firmato in originale da:

---

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

Künzelsau, 21.07.2023

## EKSPLOATACINIŲ SAVYBIŲ DEKLARACIJA

**Nr. LE\_0905440811\_05\_M\_W-VIZ**

Tai yra vertimas iš vokiečių kalbos.

Kilus abejonėms, vadovautis originalu vokiečių kalba.

- 1. Produktą tipo unikalus atpažinimo kodas:**  
„Würth“ injekcinė sistema W-VIZ  
Prekės Nr.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(išskyrus šias prekes): 5916108999; 5916110999; 5916112999;  
5916116999; 5916120999; 5916124999; 5916208999; 5916210999;  
5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Naudojimo paskirtis (-ys):**  
sujungimo kaištis tvirtinimui betone
- 3. Gamintojas:**  
„Adolf Würth GmbH & Co. KG“  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. Eksplotacinių savybių atsparumo įvertinimo ir patikrinimo sistema (-os):**  
1 sistema
- 5. Europos įvertinimo dokumentas:**  
Europos techninis įvertinimas:  
Techninio vertinimo įstaiga:  
Notifikuotoji (-osios) įstaiga (-os):  
EAD 330499-01-0601, 2020 m. balandžio mén. leidimas  
ETA-04/0095, 2023 m. liepos 21 d., pirmadienis  
„Deutsches Institut für Bautechnik (DIBt)“, Berlynas  
2873, „Institut für Stahlbau und Werkstoffmechanik“ (IFSW), Darmštas
- 6. Deklaruojama (-os) eksplotacinių savybių (-s):**

Pagrindinės charakteristikos	Eksplotacinių savybių	Darnusis techninis standartas
<b>Mechaninis stiprumas ir stabilumas (BWR 1)</b>		
Būdingas atsparumas tempimo įtampai (statinė ir kvazistatinė apkrova)	Žr. priedus C1 – C3, C10, B5 – B6	
Būdingas atsparumas skersinei apkrovai (statinė ir kvazistatinė apkrova)	Žr. priedus: C4 – C5, C11	
Trumpalaikės ir ilgalaikės apkrovos poslinkiai	Žr. priedus: C8 – C9, C11	ETA-04/0095 EAD 330499-01-0601
Būdingas atsparumas ir poslinkis seisminei eksplotacinių savybių kategorijai C1 ir C2	Žr. priedus C6 – C9	
<b>Higiena, sveikata ir aplinkosauga (BWR 3)</b>		
Pavojingų medžiagų turinys, emisija ir (arba) išskyrimas	Neįvertinta eksplotacinių savybių	



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

Pasirašo gamintojas ir atstovas gamintojo vardu:

Originalą pasirašė:

---

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

Kiuncelsau, 2023-07-21

Originalą pasirašė:

---

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

## EKSPLOATĀCIJAS ĪPAŠĪBU DEKLARĀCIJA

**Nr. LE\_0905440811\_05\_M\_W-VIZ**

Šī ir no vācu valodas tulkošta dokumenta versija.

Šaubu gadījumā spēkā ir oriģināls vācu valodā.

1. Unikāls izstrādājuma tipa identifikācijas kods: Würth injekcijas sistēma W-VIZ  
Preces Nr.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(izņemot turpmāk minētās preces: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
2. Lietojuma mērķis(-i): savienošanas dībelis enkurošanai betonā
3. Ražotājs: Uzņēmums "Adolf Würth GmbH & Co. KG"  
Adrese: Reinhold-Würth-Str. 12-17  
D - 74653 Künzelsau (Kincelzau, Vācija)
4. Ekspluatācijas īpašību noturības novērtējuma un pārbaudes sistēma(-as): 1 sistēma
5. Eiropas novērtējuma dokuments: EAD 330499-01-0601, 04/2020 izdevums  
Eiropas Tehniskais novērtējums:  
Tehniskā novērtējuma iestāde:  
Paziņotā(-ās) iestāde(-es): ETA-04/0095 no 2023. gada 21. jūlijā  
Vācijas būvniecības tehnikas institūts (DIBt), Berlin (Berlīne)  
2873, Institut für Stahlbau und Werkstoffmechanik (IIFSW), Darmstadt  
(Darmštate)
6. Deklarētā veikspēja(-as):

<b>Būtiskie raksturielumi</b>	<b>Ekspluatācijas īpašības</b>	<b>Saskaņotā tehniskā specifikācija</b>
<b>Mehāniskā izturība un stiprība (BWR 1)</b>		
Raksturīgā pretestība stiepes slodzei (statiska un kvazistatiska slodze)	Skafit C1-C3, C10, B5-B6 pielikumu	
Raksturīgā pretestība pie šķērsslodzes (statiskā un kvazistatiskā slodze)	Skafit C4-C5, C11 pielikumu	
Bīde pie īslaicīgas un ilgstošas slodzes	Skafit C8-C9, C11 pielikumu	
Raksturīgā pretestība un bīde saistībā ar seismisko īpašību kategorijām C1 un C2	Skafit C6-C9 pielikumu	
<b>Higiēna, veselība un vides aizsardzība (BWR 3)</b>		
Bīstamu vielu saturs, emisija un/vai izdalīšana	Īpašība nav vērtēta	ETA-04/0095 EAD 330499-01-0601



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

Ražotāja un ražotāja pārstāvja paraksts:

Oriģinālu parakstījis:

---

Franks Volperts (Frank Wolpert)

(Prokūrists – produkta, nodaļu,  
mārketinga vadītājs)

Oriģinālu parakstījis:

---

Dr. Ing. Siegfried Beichter (Zigfrīds  
Beihters)

(Prokūrists – kvalitātes sistēmas vadītājs)

Künzelsau (Kincelzava), 21.07.2023.

## DIKJARAZZJONI TA' PRESTAZZJONI

**Nru LE\_0905440811\_05\_M\_W-VIZ**

Din hija l-verżjoni tradotta mill-Ġermaniż.

F'kaž ta' dubju ċiex iż-ġiekkie id-dokument originali bil-lingwa ġermaniż.

- 1. Kodiċi uniku ta' identifikazzjoni tat-tip ta' prodott:** Würth Sistema b'Injezzjoni W-VIZ  
Nru tal-oġġett: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(b'eskużjoni ta' dawn il-prodotti: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Użu/i intenzjonat/i:** Kavilja għat-twaħħil, għall-ankraġġ fil-konkri
- 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 04/2020  
**Valutazzjoni Teknika Ewropea:** ETA-04/0095 ta' 21/07/2023  
**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:**

<b>Karatteristiċi essenzjali</b>	<b>Prestazzjoni</b>	<b>Specifikazzjoni teknika armonizzata</b>
<b>Stabbiltà u ebusija mekkanika (BWR 1)</b>		
Reżistenza karatteristika taħbi stress tensili (tagħbijiet statici u kważi statici)	Ara I-Annessi C1 – C3, C10, B5 – B6	
Reżistenza karatteristika taħbi tagħbija transversali (tagħbijiet statici u kważi statici)	Ara I-Annessi C4 – C5, C11	
Spostamenti għal tagħbija ta' ħin qasir u ħin twil	Ara I-Annessi C8 – C9, C11	ETA-04/0095 EAD 330499-01-0601
Reżistenza karatteristika u spostamenti għall-kategoriji ta' prestazzjoni siżmika C1 u C2	Ara I-Annessi C6 – C9	
<b>Iġjene, saħħa u protezzjoni tal-ambjent (BWR 3)</b>		
Kontenut, emissjoni u/jew rilaxx ta' sustanzi perikoluži	Prestazzjoni mhux stabilita	



Il-prestazzjoni tal-prodott identifikat hawn fuq hija konformi mal-prestazzjonijiet iddiċċarati. 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 ħisem il-manifattur minn:

Fid-dokument oriġinali, iffirmsat minn:

---

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

Künzelsau, 21/07/2023

Fid-dokument oriġinali, iffirmsat minn:

---

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

## PRESTATIEVERKLARING

**Nr. LE\_0905440811\_05\_M\_W-VIZ**

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

- 1. Eenduidige identificatiecode van het producttype:**  
Würth injectiesysteem W-VIZ  
Art.nr.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(met uitzondering van onderstaande artikelen: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)  
compoundanker voor verankering in beton
- 2. Gebruiksdoel(en):**
- 3. Fabrikant:**  
Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. Systeem/systemen voor beoordeling en verificatie van de prestatiebestendigheid:**  
Systeem 1
- 5. Europees beoordelingsdocument:**  
EAD 330499-01-0601, editie 04/2020  
**Europese technische beoordeling:**  
ETA-04/0095 d.d. 21 juli 2023  
**Technische beoordelingsinstantie:**  
Deutsches Institut für Bautechnik (DIBt), Berlijn  
**Aangemelde instantie(s):**  
2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt
- 6. Vastgestelde prestatie(s):**

<b>Belangrijkste eigenschappen</b>	<b>Prestatie</b>	<b>Geharmoniseerde technische specificatie</b>
<b>Mechanische sterkte en stabiliteit (BWR 1)</b>		
Karakteristieke weerstand bij trekbelasting (statische en quasi-statische belasting)	Zie bijlage C1 - C3, C10, B5 - B6	
Karakteristieke weerstand bij dwarsbelasting (statische en quasi-statische belasting)	Zie bijlage C4 - C5, C11	
Verschuivingen bij kortstondige en langdurige belasting	Zie bijlage C8 - C9, C11	ETA-04/0095 EAD 330499-01-0601
Karakteristieke weerstand en verschuivingen voor seismische prestatiecategorieën C1 en C2	Zie bijlage C6 - C9	
<b>Hygiëne, gezondheid en milieubescherming (BWR 3)</b>		
Inhoud, emissie en / of vrijkomen van gevaarlijke stoffen	prestatie niet beoordeeld	



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

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

Origineel ondertekend door:

---

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

Origineel ondertekend door:

---

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

Künzelsau, 21/07/2023

## YTLESEERKLÆRING

Nr. LE\_0905440811\_05\_M\_W-VIZ

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

**1. Entydig kode for produkttypen:**

Würth injeksjonssystem W-VIZ  
 Art.-nr.: 090544000\*; 090342030\*;  
 090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
 (unntatt artiklene under: 5916108999; 5916110999; 5916112999;  
 5916116999; 5916120999; 5916124999; 5916208999; 5916210999;  
 5916212999; 5916216999; 090545030\*; 090545040\*)

**2. Bruksområde:**

Kompositplugg til forankring i betong

**3. Produsent:**

Adolf Würth GmbH & Co. KG  
 Reinhold-Würth-Str. 12 - 17  
 D - 74653 Künzelsau

**4. System(er) til vurdering og kontroll av ytelsesbestandighetene:**

System 1

**5. Europeisk vurderingsdokument:**

EAD 330499-01-0601, Edition 04/2020

Europeisk teknisk godkjenning:

ETA-04/0095 fra 21. juli 2023

Teknisk godkjenningsorgan:

Deutsches Institut für Bautechnik, Berlin

Teknisk(e) kontrollorgan(er):

2873, Institut für Stahlbau und Werkstoffmechanik (IIFSW), Darmstadt,  
 Tyskland

**6. Erklært(e) ytelse(r):**

Vesentlige egenskaper	Ytelse	Harmonisert teknisk spesifikasjon
<b>Mekanisk fasthet og stabilitet (BWR 1)</b>		
Karakteristisk motstand ved strekkbelastning (statisk og nesten-statisk belastning)	Se vedlegg C1 - C3, C10, B5 - B6	
Karakteristisk motstand under tverrlast (statisk og nesten-statisk belastning)	Se vedlegg C4 - C5, C11	
Forskyvninger for kortvarig og langvarig belastning	Se vedlegg C8 - C9, C11	
Karakteristisk motstand og forskyvninger for de seismiske ytelseskategoriene C1 og C2	Se vedlegg C6 - C9	
<b>Hygiene, helse og miljøvern (BWR 3)</b>		
Innhold, emisjon og/eller utslipp av farlige stoffer	Ytelse ikke vurdert	ETA-04/0095 EAD 330499-01-0601



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

Undertegnet for produsenten og på vegne av produsenten:

Originalen underskrevet av:

---

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

Originalen underskrevet av:

---

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

Künzelsau, den 21.07.2023

## DEKLARACJA WŁAŚCIWOŚCI UŻYTKOWYCH

**Nr LE\_0905440811\_05\_M\_W-VIZ**

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

- 1. Niepowtarzalny kod identyfikacyjny typu produktu:** Würth system do zastrzyków W-VIZ  
Nr artykułu: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(za wyjątkiem poniższych artykułów: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Przeznaczenie:** kołek rozporowy do kotwienia w betonie
- 3. Producent:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. System (systemy) oceny i weryfikacji stałości właściwości użytkowych:** System 1
- 5. Europejski dokument oceny:** EAD 330499-01-0601, edycja 04/2020  
**Europejska Ocena Techniczna:** ETA-04/0095 z dnia 21 lipca 2023 r.  
**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:**

Zasadnicze charakterystyki	Właściwości użytkowe	Zharmonizowana specyfikacja techniczna
<b>Wytrzymałość mechaniczna i stateczność (BWR 1)</b>		
Opór właściwy przy naprężeniu rozciągającym (oddziaływanie statyczne i quasi statyczne)	Patrz załącznik C1 – C3, C10, B5 – B6	
Opór właściwy przy obciążeniu poprzecznym (obciążenie statyczne i quasi statyczne)	Patrz załącznik C4 – C5, C11	
Przesunięcia na skutek krótko- i długotrwałego obciążenia	Patrz załącznik C8 – C9, C11	
Opór właściwy i przesunięcia dla sejsmicznych kategorii właściwości C1 i C2	Patrz załącznik C6 – C9	
<b>Higiena, zdrowie i ochrona środowiska (BWR 3)</b>		
Zawartość, emisja i / lub uwalnianie substancji niebezpiecznych	Nie oceniano właściwości	



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

Podpisano za producenta i w jego imieniu:

Oryginał podpisany przez:

---

Frank Wolpert  
(Prokurent - Kierownik działu  
produktów i marketingu)

Oryginał podpisany przez:

---

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

Künzelsau, dnia 2023-07-21 r.

## DECLARAÇÃO DE DESEMPENHO

**N.º LE\_0905440811\_05\_M\_W-VIZ**

*Versão traduzida da versão alemã.*

*Em caso de dúvida é válido o original alemão.*

- 1. Código de identificação inequívoco do tipo de produto:** Würth Sistema de injeção W-VIZ  
N.º art.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(à exceção dos artigos que se seguem: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Fim/fins de utilização:** Caviga de fixação por aderência para ancoragem em betão
- 3. Fabricante:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. Sistema(s) para avaliação e verificação da constância do desempenho:** Sistema 1
- 5. Documento de avaliação europeu:** EAD 330499-01-0601, edição 04/2020  
**Avaliação Técnica Europeia:** ETA-04/0095 de 21 de julho de 2023  
**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):**

<b>Características essenciais</b>	<b>Desempenho</b>	<b>Especificação técnica harmonizada</b>
<b>Resistência mecânica e estabilidade (BWR 1)</b>		
Resistência característica sob esforço de tração (cargas estáticas e quase-estáticas)	Veja o anexo C1 - C3, C10, B5 - B6	
Resistência característica sob carga transversal (cargas estáticas e quase-estáticas)	Veja o anexo C4 - C5, C11	
Deslocamentos sob esforço a curto prazo e a longo prazo	Veja o anexo C8 - C9, C11	ETA-04/0095 EAD 330499-01-0601
Resistência característica e deslocamentos para as categorias de desempenho sísmico C1 e C2	Veja o anexo C6 - C9	
<b>Higiene, saúde e proteção do ambiente (BWR 3)</b>		
Teor, emissão e/ou liberação de substâncias perigosas	Desempenho não avaliado	



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

Assinado pelo fabricante e em nome do fabricante por:

Documento original assinado por:

---

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

Documento original assinado por:

---

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

Künzelsau, a 21.07.2023

## DECLARAȚIE DE PERFORMANȚĂ

**Nr. LE\_0905440811\_05\_M\_W-VIZ**

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 W-VIZ Würth  
Articol Nr.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(excepție sunt următoarelor articole: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
2. Scopul sau scopurile de utilizare: Diblu de îmbinare pentru ancorează în beton
3. Producător: Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
4. Sistem(e) pentru evaluarea și verificarea constanței performanței: Sistem 1
5. Document european de evaluare:  
Evaluare tehnică europeană:  
Organism de evaluare tehnică:  
Organism(e) notificat(e): EAD 330499-01-0601, ediția 04/2020  
ETA-04/0095 din 21.07.2023  
Deutsches Institut für Bautechnik (DIBt), Berlin  
2873, Institut für Stahlbau und Werkstoffmechanik (Institutul pentru Construcții din Oțel și Mecanica Materialelor – IFSW), Darmstadt
6. Performanța(e) declarată(e):

<b>Caracteristici esențiale</b>	<b>Performanță</b>	<b>Specificație tehnică armonizată</b>
<b>Rezistență mecanică și stabilitate (BWR 1)</b>		
Rezistență caracteristică la o solicitare de tracțiune (sarcini statice și cvasistatiche):	a se vedea anexa C1 - C3, C10, B5 - B6	
Rezistență caracteristică la o sarcină transversală (sarcini statice și cvasistatiche)	A se vedea anexa C4 - C5, C11	
Deplasări în cazul unei solicitări de scurtă durată și de lungă durată	A se vedea anexa C8 - C9, C11	ETA-04/0095 EAD 330499-01-0601
Rezistență caracteristică și deplasări pentru categoriile de performanțe seismice C1 și C2	A se vedea anexa C6 - C9	
<b>Igienă, sănătate și protecția mediului înconjurător (BWR 3)</b>		
Conținut, emisie și/sau degajarea de substanțe periculoase	Performanța nu este evaluată	



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

Semnată pentru și în numele producătorului, de către:

Semnat în original de:

---

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

Semnat în original de:

---

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

Künzelsau, 21.07.2023

## ДЕКЛАРАЦИЯ ХАРАКТЕРИСТИК

**№ LE\_0905440811\_05\_M\_W-VIZ**

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

- 1. Однозначная маркировка типа продукта:** Система инъекции Würth W-VIZ  
Арт.№: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(за исключением следующих артикулов: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Цель(и) применения:** Комбинированный дюбель для анкеровки в бетоне
- 3. Изготовитель:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. Система(ы) оценки и проверки стабильности характеристик:** Система 1
- 5. Европейский оценочный документ:** EAD 330499-01-0601, редакция от 04/2020  
**Европейская техническая оценка:** ETA-04/0095 от 21.07.2023  
**Орган технической оценки** Германский институт строительных технологий (DIBt), Берлин  
**Уполномоченный(е) орган(ы):** 2873, Институт стальных конструкций и механики материалов (IIFSW),  
Дармштадт
- 6. Заявленная(-ые) характеристика(-и):**

<b>Важные признаки</b>	<b>Характеристика</b>	<b>Гармонизированная техническая спецификация</b>
<b>Механическая прочность и устойчивость (BWR 1)</b>		
Типичное сопротивление при растяжении (статические и квазистатические нагрузки)	См. приложения C1 – C3, C10, B5 – B6	
Типичное сопротивление при под воздействием поперечной нагрузки (статические и квазистатические нагрузки)	См. приложения C4 – C5, C11	
Перемещения при кратковременном и длительном нагружении	См. приложения C8 – C9, C11	ETA-04/0095 EAD 330499-01-0601
Типичные сопротивления и смещения для категорий сейсмостойкости C1 и C2	См. приложения C6 – C9	
<b>Гигиена, здоровье и охрана окружающей среды (BWR 3)</b>		
Состав, эмиссия и/или выделение опасных веществ	характеристика не определена	



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

Подписано за изготовителя и от имени изготовителя:

Оригинал подписан:

---

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

Оригинал подписан:

---

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

Кюнцельзау, 21.07.2023

## PRESTANDADEKLARATION

**Nr. LE\_0905440811\_05\_M\_W-VIZ**

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

- 1. Produkttypens unika identifikationskod:** Würth injekteringssystem W-VIZ  
Art.-nr.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(med undantag av följande artiklar: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
- 2. Användningsändamål:** Ankarplugg för förankring i betong
- 3. Tillverkare:** Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
- 4. System för bedömning och kontroll av prestandabeständighet:** System 1
- 5. Europeiskt bedömningsdokument:** EAD 330499-01-0601, Edition 04/2020  
**Europeisk teknisk bedömnning:** ETA-04/0095 från 2023-07-21  
**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
<b>Mekanisk hållfasthet och stabilitet (BWR 1)</b>		
Karakteristiskt motstånd vid dragpåkänning (statiska och kvasistatiska laster)	Se Bilaga C1 – C3, C10, B5 – B6	
Karakteristiskt motstånd vid tvärbelastning (statiska och kvasistatiska laster)	Se Bilaga C4 – C5, C11	
Förskjutningar för korttids- och långtidsbelastning	Se Bilaga C8 – C9, C11	ETA-04/0095 EAD 330499-01-0601
Karakteristiskt motstånd och förskjutningar för de seismiska prestandakategorierna C1 och C2	Se Bilaga C6 – C9	
<b>Hygien, hälsa och miljöskydd (BWR 3)</b>		
Innehåll, emission och/eller frisättning av farliga ämnen	Prestanda ej bedömd	



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

Undertecknad för tillverkaren och på tillverkarens vägnar av:

I originalet undertecknad av:

---

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

Künzelsau, 2023-07-21

I originalet undertecknad av:

---

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

## VYHLÁSENIE O VLASTNOSTIACH

**Č. LE\_0905440811\_05\_M\_W-VIZ**

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

1. Jednoznačný identifikačný kód typu výrobku:  
Würth vstrekovací systém W-VIZ  
Č. výr.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(vylúčené sú nasledujúce články: 5916108999; 5916110999;  
5916112999; 5916116999; 5916120999; 5916124999; 5916208999;  
5916210999; 5916212999; 5916216999; 090545030\*; 090545040\*)
2. Účel(y) použitia:  
Spojovacie hmoždinky na ukotvenie do betónu
3. Výrobca:  
Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau
4. Systém (systémy) na posudzovanie a overovanie odolnosti parametrov:  
Systém 1
5. Európsky vyhodnocovací dokument:  
EAD 330499-01-0601, Edícia 04/2020  
Európske technické posúdenie:  
ETA-04/0095 zo dňa 21.07.2023  
Orgán pre technické posudzovanie:  
Deutsches Institut für Bautechnik (Nemecký inštitút pre stavebnú techniku)  
(DIBt), Berlín
- Notifikovaný orgán (-y):  
2873, Inštitút pre oceľové konštrukcie a mechaniku materiálov (IFSW),  
Darmstadt
6. Vlastnosť (vlastnosti) uvedené vo vyhlásení:

<b>Podstatné znaky</b>	<b>Vlastnosť</b>	<b>Harmonizovaná technická špecifikácia</b>
<b>Mechanická pevnosť a stabilita (BWR 1)</b>		
Charakteristické odolnosti pri namáhaní ľahom (statické a kvázi-statické zaťaženia)	Pozri prílohu C1 – C3, C10, B5 – B6	
Charakteristické odolnosti pri priečnom zaťažení (statické a kvázi-statické zaťaženia)	Pozri prílohu C4 – C5, C11	
Posuny pri krátkodobom a dlhodobom zaťažení	Pozri prílohu C8 – C9, C11	
Charakteristická odolnosť a posuny pre seismickú kategóriu parametrov C1 a C2	Pozri prílohu C6 – C9	
<b>Hygiena, ochrana zdravia a životného prostredia (BWR 3)</b>		
Obsah, emisie a/alebo uvoľňovanie nebezpečných látok	Vlastnosť nie je hodnotená	



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

Podpísané pre výrobcu a v mene výrobcu:

Pôvodne podpísal:

---

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

Pôvodne podpísal:

---

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

Künzelsau, 21.7.2023

## IZJAVA O LASTNOSTIH

**Št. LE\_0905440811\_05\_M\_W-VIZ**

To besedilo je prevod iz nemščine.

Ob dvomu velja nemški izvirnik.

- 1. Enotna identifikacijska oznaka tipa izdelka:**

Vbrizgalni sistem Würth W-VIZ  
 Št. art.: 090544000\*; 090342030\*;  
 090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
 (izključeni so naslednji artikli: 5916108999; 5916110999; 5916112999;  
 5916116999; 5916120999; 5916124999; 5916208999; 5916210999;  
 5916212999; 5916216999; 090545030\*; 090545040\*)

- 2. Nameni uporabe:**

- 3. Proizvajalec:**

Adolf Würth GmbH & Co. KG  
 Reinhold-Würth-Str. 12-17  
 D - 74653 Künzelsau, Nemčija  
 Sistem 1

- 4. Sistemi za vrednotenje in preverjanje trajnosti lastnosti:**

- 5. Evropski ocenjevalni dokument:**

EAD 330499-01-0601, izdaja 04/2020

ETA-04/0095 z dne 21. 7. 2023

Deutsches Institut für Bautechnik (DIBt), Berlin

- 6. Navedene lastnosti:**

<b>Bistvene značilnosti</b>	<b>Lastnost</b>	<b>Harmonizirana tehnična specifikacija</b>
<b>Mehanska odpornost in stabilnost (BWR 1)</b>		
Značilna odpornost pri potezni obremenitvi (statična in kvazistatična bremena)	Glejte Priloge C1 – C3, C10, B5-B6	
Značilna odpornost pri prečni obremenitvi (statična in kvazistatična bremena)	Glejte Priloge C4-C5, C11	
Premikanje pri kratkotrajni in dolgotrajni obremenitvi	Glejte Priloge C8-C9, C11	ETA-04/0095 EAD 330499-01-0601
Značilne odpornosti in premiki pri seizmičnih obremenitvah, kategoriji zmogljivosti C1 ter C2	Glejte Prilogi C6-C9	
<b>Higiena, zdravje in varovanje okolja (BWR 3)</b>		
Vsebnost, izpusti in/ali sproščanje nevarnih snovi	Lastnost ni ocenjena	



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

Podpis za proizvajalca in v njegovem imenu:

Original podpisal:

---

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

Original podpisal:

---

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

Künzelsau, 21. 7. 2023

## PERFORMANS BEYANI

No. LE\_0905440811\_05\_M\_W-VIZ

Burada söz konusu olan Almanca dilinden yapılmış bir çeviridir.

Şüpheli durumlarda Almanca orijinal metin geçerli olacaktır.

1. Ürün tipinin açık kodu:

Würth Enjeksiyon sistemi W-VIZ  
Ürün No.: 090544000\*; 090342030\*;  
090544\*; 090545\*; 59161\*; 59162\*; 5916410\*; 5916411\*  
(Aşağıdaki ürünler hariçtir: 5916108999; 5916110999; 5916112999;  
5916116999; 5916120999; 5916124999; 5916208999; 5916210999;  
5916212999; 5916216999; 090545030\*; 090545040\*)

2. Kullanma amacı (amaçları):

Betona ankraj için kimyasal dübel

3. Üretici:

Adolf Würth GmbH & Co. KG  
Reinhold-Würth-Str. 12 - 17  
D - 74653 Künzelsau

4. Performansın sürdürülebilirliğinin değerlendirilmesi ve kontrolü için sistem(ler):

Sistem 1

5. Avrupa Değerlendirme Belgesi:

EAD 330499-01-0601, Baskı 04/2020

Avrupa Teknik Değerlendirmesi:

21 Temmuz 2023 tarihli ETA-04/0095

Teknik Değerlendirme Kuruluşu:

Deutsches Institut für Bautechnik (DIBt), Berlin

Akkredite kuruluş(lar):

2873, Institut für Stahlbau und Werkstoffmechanik (IFSW), Darmstadt

6. Beyan edilen performans(lar):

Önemli özellikler	Performans	Uyumlandırılmış teknik nitelik
<b>Mekanik dayanıklılık ve kararlılık (BWR 1)</b>		
Çekme yükü altında karakteristik direnç (statik ve duruğumsu yükler)	Bkz. Ek C1 – C3, C10, B5 – B6	
Enine yük altındaki karakteristik direnç (Statik ve duruğumsu yükler)	Bkz. Ek C4 – C5, C11	
Kısa ve uzun süreli yük için kaydırmalar	Bkz. Ek C8 – C9, C11	
Sismik güç kategorileri C1 ve C2 için karakteristik direnç ve kaydırmalar	Bkz. Ek C6 – C9	
<b>Hijyen, sağlık ve çevre koruma (BWR 3)</b>		
İçerik, emisyon ve/veya tehlikeli maddelerin açığa çıkması	Performans değerlendirilmedi	ETA-04/0095 EAD 330499-01-0601



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

Üretici için ve üretici adına imzalayan:

Orijinalini imzalayan:

---

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

Orijinalini imzalayan:

---

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

Künzelsau, 21.07.2023