



TELJESÍTMÉNY-NYILATKOZAT

DoP Nr. KEW - 2323-CPR-0032 - hu

1. A termék egyértelmű neve, kódja: Keretdübel RD / RDD
2. Típus-, gyártási -, szériaszám, vagy más jelölés a termék egyértelmű azonosítására a 11. cikk 4. bekezdése szerint:

ETA-09/0184 melléklet A2
Gyártási szám: lásd csomagolás

3. Az építési termék gyártó által megadott felhasználása(i) a műszaki specifikáció alapján

Terméktípus	Műanyagdübel nem teherhordó rendszerek rögzítésére
A felhasználás helye	ETA-08/0191 melléklet B1
Felhasználási kategória	ETA-08/0191 melléklet B1
Terhelés	ETA-08/0191 melléklet B1
Anyaga	ETA-08/0191 melléklet A4
Hőmérséklet-tartomány	ETA-08/0191 melléklet B1

4. A gyártó neve, bejegyzett kereskedelmi neve és címe a 11. cikk 5. bekezdése alapján:

KEW Kunststoffherzeugnisse GmbH Wilthen
Dresdener Straße 19
02681 Wilthen
Germany

5. Az esetleges meghatalmazott neve a 12. cikk 2. bekezdése alapján:

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6. Az építési termék teljesítményének vizsgálatára és értékelésére alkalmazott rendszer(ek) a V melléklet szerint:

Rendszer 2+

7. A teljesítmény-nyilatkozathoz használt harmonizált szabvány:

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8.

A teljesítmény-nyilatkozat alapjául szolgáló tanúsítvány kibocsájtója:

DIBt Deutsches Institut für Bautechnik

Tanúsítvány:

ETA-08/0191

-től

10.12.2013

A vizsgálati eljárás alapja:

ETAG 020 változat 2012

A tanúsítványt kiadó szerv

2323-CPR

a

Rendszer 2+

szerint feladatként határozta meg:

i)

ii) A gyártó üzem és az üzemi gyártásellenőrzés megismerése;

Folyamatos ellenőrzés, az üzemi gyártásellenőrzés véleményezése, minősítése.

és az alábbi adta ki:

2323-CPR-0032

9. Tanúsított teljesítmény:

Fontos ismertetőjegyek	Mérési módszer	Teljesítmény		Harmonizált műszaki specifikáció
		Acél, horganyzott	Rozsdamentes acél A4	
A csavar jellemző hajlítónyomatéka	ETAG 020mint EAD	ETA-08/0191 melléklet C1	ETA-08/0191 melléklet C1	ETAG 020mint EAD
Jellemző kihúzó értékek	ETAG 020mint EAD	ETA-08/0191 melléklet C1/C2	ETA-08/0191 melléklet C1/C2	
Elmozdulás a használat során	ETAG 020mint EAD	ETA-08/0191 melléklet C3	ETA-08/0191 melléklet C3	
Minimális tengely-és peremtávolságok	ETAG 020mint EAD	ETA-08/0191 melléklet B5 / B6	ETA-08/0191 melléklet B5 / B6	

Ha a 37. vagy 38. cikk szerint a vizsgálathoz különleges műszaki specifikációt használtak, követelmények, amelyeknek a termék megfelel:

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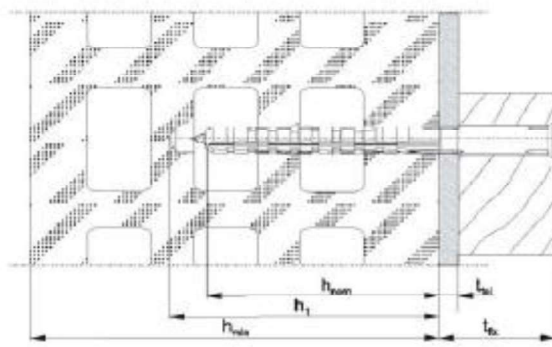
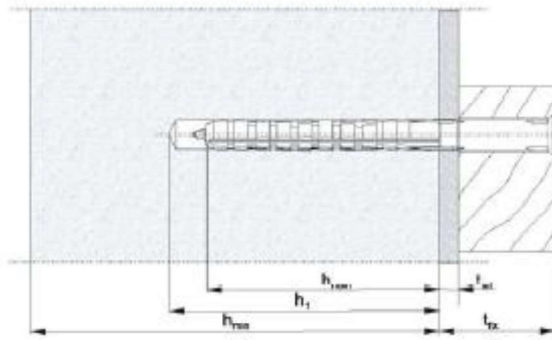
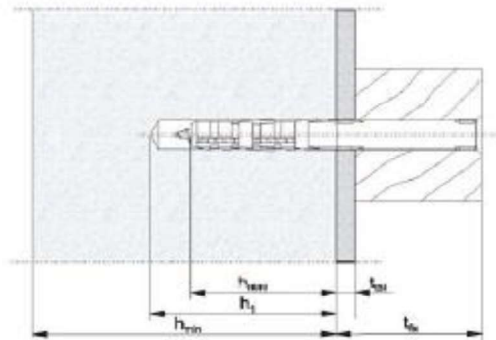
10. A termék teljesítménye az 1. és 2. pont szerint megfelel a 9. pontban leírtaknak. Ezen a teljesítmény-nyilatkozat kiadásáért egyedül a 4. pontban megadott gyártó felelős. A gyártó nevében aláírja:


André Gedán
(Kereskedelmi - és marketing igazgató)
Wilthen, 13.06.2019



KEW – RD 10

KEW – RDD 10



Legend

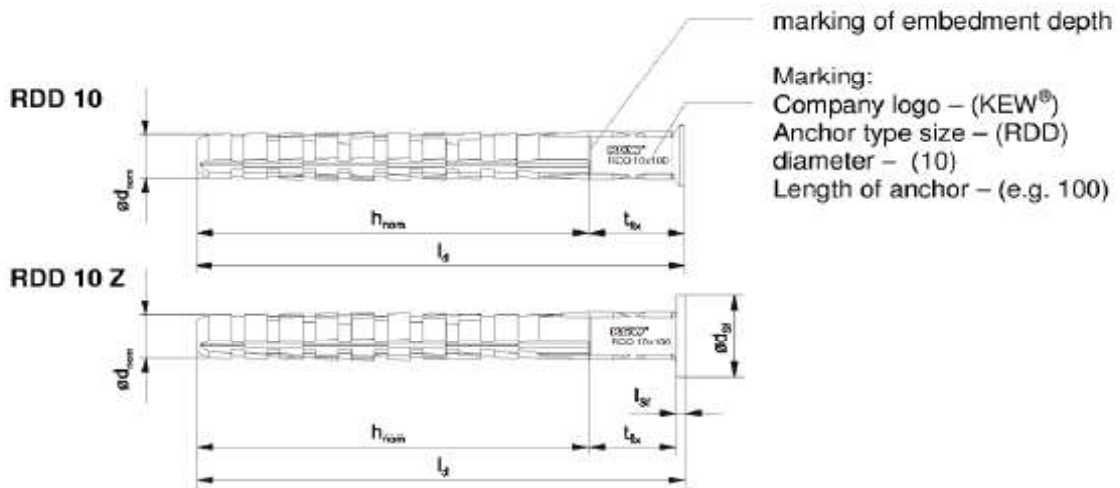
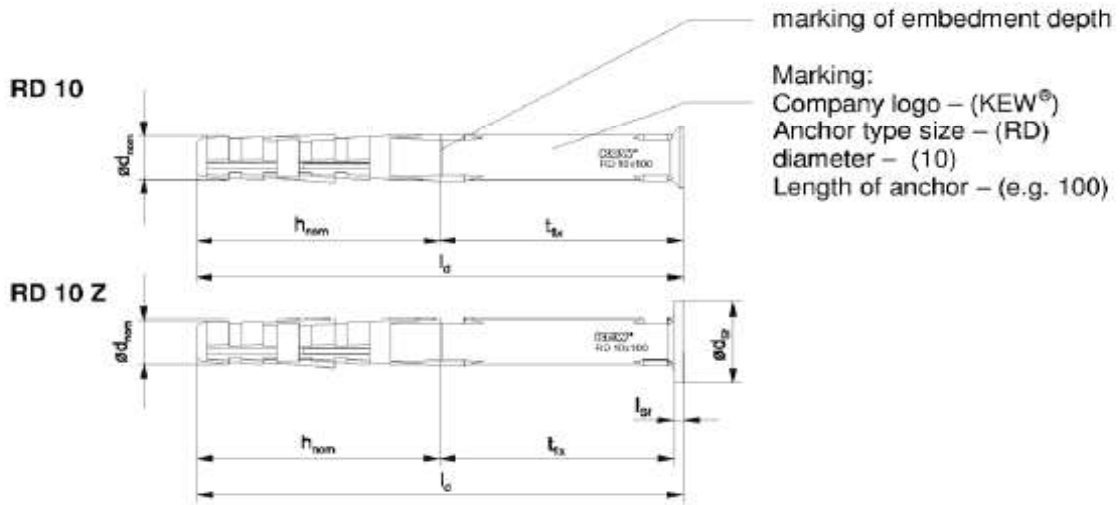
- h_{nom} = overall plastic anchor embedment depth in the base material
- h_1 = depth of drill hole to deepest point
- h_{min} = thickness of member (wall)
- t_{fix} = thickness of fixture
- t_{coat} = thickness of layer or non-load bearing coating

KEW Frame plug RD and RDD 10

Product description
Intended use

Annex A 1

Anchor sleeve



KEW Frame plug RD and RDD 10

Product description
 Anchor type - dimensions

Annex A 2

Special screw

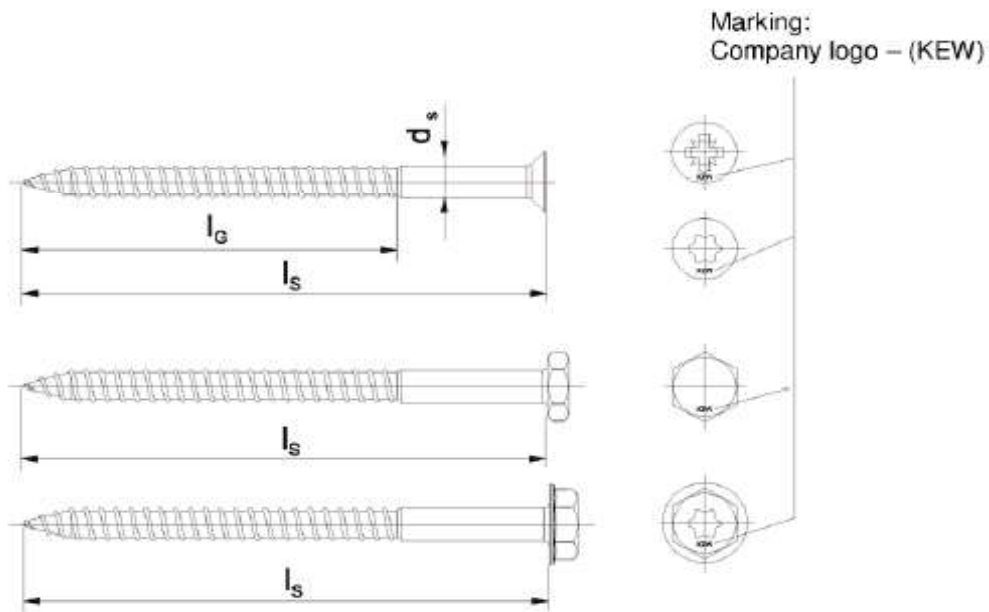


Table A1: Dimensions [mm]

Anchor type	Anchor sleeve						Special screw		
	h_{nom} [mm]	$\varnothing d_{nom}$ [mm]	t_{fix} [mm]	l_d [mm]	l_{st} [mm]	$\varnothing d_{st}$ [mm]	$\varnothing d_s$ [mm]	l_G [mm]	$l_s^{3)}$ [mm]
RD 10	50	10	$\geq 8^{1)/10}$	80 - 300	1,8	18	7	70	≥ 85
RD 10 ²⁾	50	10	$\geq 8^{1)/10}$	60	1,8	18	7	60	65
RDD 10	80	10	$\geq 8^{1)/10}$	90 - 300	1,8	18	7	70	≥ 95

¹⁾ For RD 10 Z and RDD 10 Z

²⁾ For RD 10x60 and RD 10x60 Z

³⁾ To insure that the screw penetrates the anchor sleeve, l_s must be $l_d + l_{st}^{4)} + 5$ mm

⁴⁾ Only valid for flat collar version

KEW Frame plug RD and RDD 10

Product description
Special screw - dimensions

Annex A 3

Table A2: Materials

Member	Material
Anchor sleeve	Polyamid, PA6, colour papyrus white
Special screw	Steel, galvanized A2L or A2K according to EN ISO 4042:2001-01 $f_{yk} \geq 480 \text{ N/mm}^2$; $f_{uk} \geq 600 \text{ N/mm}^2$
	Stainless steel; mat.No. 1.4401 – 1.4571 according to EN ISO 3506-01:2010-04 $f_{yk} \geq 450 \text{ N/mm}^2$; $f_{uk} \geq 700 \text{ N/mm}^2$

KEW Frame plug RD and RDD 10

Product description
Materials

Annex A 4

Specifications of intended use

Anchorage subject to:

- Static and quasi-static loads
- Multiple use for non-structural applications

Base materials:

- Reinforced or unreinforced normal weight concrete with strength classes \geq C12/15 (use category a), according to EN 206-1:2000.
- Solid brick masonry (use category b), according to Annex C 2.
Note: The characteristic resistance is also valid for larger brick sizes and larger compressive strength of the masonry unit.
- Hollow brick masonry (use category c), according to Annex C 2.
- Mortar strength class of the masonry M2,5 at minimum according to EN 998-2:2010.
- For other base materials of the use categories a, b, c and d the characteristic resistance of the anchor may be determined by job site tests according to ETAG 020, Annex B Edition March 2012.

Temperature range:

Table B1:

Temperature range:	Max long term temperature °C	Max short term temperature °C
Temperature range "a" -40°C to +40°C	+24	+40
Temperature range "b" -40°C to +80°C	+50	+80

KEW Frame plug RD and RDD 10

Product description
conditions

Annex B 1

Use conditions (Environmental conditions):

- Structures subject to dry internal conditions (zinc coated steel, stainless steel).
- Structures subject to external atmospheric exposure (including industrial and marine environment) and to permanently damp internal condition, if no particular aggressive conditions exist (stainless steel).

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

Design:

- The anchorages are designed in accordance with the ETAG 020, Annex C Edition March 2012 under the responsibility of an engineer experienced in anchorages and masonry work.
- Verifiable calculation notes and drawings shall be prepared taking account of the loads to be anchored, the nature and strength of the base materials and the dimensions of the anchorage members as well as of the relevant tolerances. The position of the anchor is indicated on the design drawings
- Fasteners are only to be used for multiple use for non-structural application, according to ETAG 020 Edition March 2012.

Installation:

- Hole drilling by the drill modes given in Annex C 1 and C 2 for use categories a, b and c, other drilling methods may be determined by job-site tests according to ETAG 020, Annex C Edition March 2012
- Anchor installation carried out by appropriately qualified personnel and under the supervision of the person responsible for technical matters of the site.
- Installation temperature from $\geq 0^{\circ}\text{C}$
- Exposure to UV due to solar radiation of the anchor not protected ≤ 6 weeks

KEW Frame plug RD and RDD 10

Intended Use
Bedingungen

Annex B 2

Table B2: Geometry and dimensions of the hollow or perforated masonry

Base material	drawing
<p>Hollow clay brick HLz 12-1,0-2DF Acc. to EN 771-1:2011</p>	<p>Figure 1</p>
<p>Hollow sand-lime brick KS L 12-1,4-8DF Acc. to EN 771-2:2011</p>	<p>Figure 2</p>

KEW Frame plug RD and RDD 10

Intended Use
Stone geometry (use category "c")

Annex B 3

Tabelle B3: Installation parameters

Anchor type		RD 10	RDD 10
Drill hole diameter	$d_0 =$ [mm]	10	10
Cutting diameter of drill bit	$d_{out} \leq$ [mm]	10,45	10,45
Depth of drill hole to deepest point ¹⁾	$h_1 \geq$ [mm]	60	90
Overall plastic anchor embedment depth in the base material ¹⁾	$h_{nom} \geq$ [mm]	50	80 ²⁾
Diameter of clearance hole in the fixture	$d_f \leq$ [mm]	10,5	10,5

¹⁾ See Annex 1

²⁾ For hollow and perforated masonry the influence of $h_{nom} \geq 80$ mm has to be detected by job site tests according ETAG 020, Annex B Edition March 2012.

KEW Frame plug RD and RDD 10

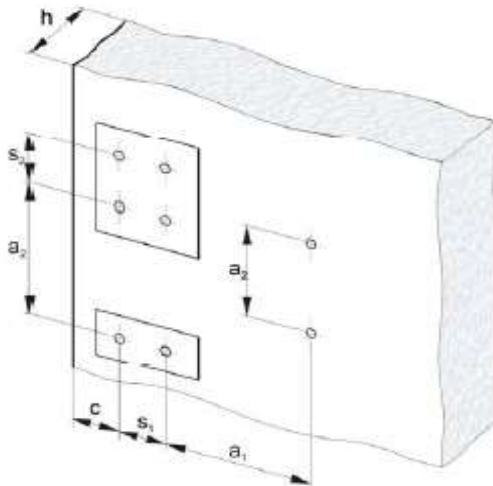
Intended Use
Installation parameters

Annex B 4

Table B4: Minimum thickness of member, edge distance and spacing in concrete (use category "a")

		≥ C 20/25		C 12/15	
		RD 10	RDD 10	RD 10	RDD 10
Minimum thickness	$h_{min} =$ [mm]	100	110	100	110
Characteristic edge distances	$c_{cr,N} =$ [mm]	50	70	70	100
Minimum edge distances	$c_{min} =$ [mm]	50	50	70	70
Minimum spacing distances	$s_{min} =$ [mm]	50	75	70	105
spacing between outer anchors of adjoining groups or between single anchors	$a \geq$ [mm]	65	85	95	120

Scheme of distance and spacing in concrete (use category "a")



KEW Frame plug RD and RDD 10

Intended Use

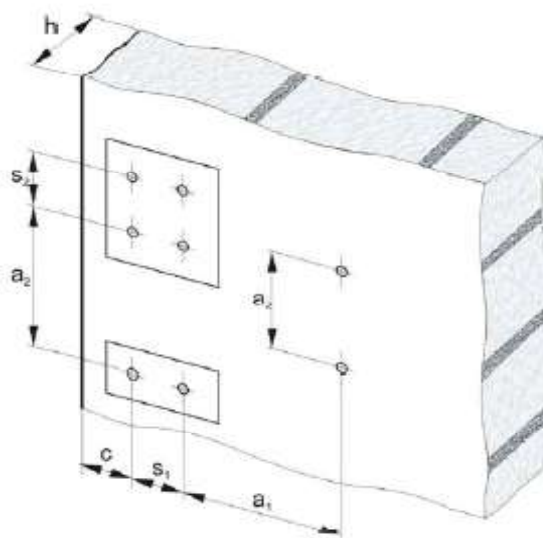
Minimum thickness of Member
 Minimum spacing and edge distances in concrete use category "a"

Annex B 5

Table B5: Minimum distances and dimensions in masonry (use category "b" and "c")

		RD 10 / RDD 10
Minimum thickness of member	h_{min} [mm]	115
Single Anchor		
Minimum spacing	$a \geq$ [mm]	250
Minimum edge distance	$c_{min} =$ [mm]	100
Anchor Group		
Spacing perpendicular to free edge	$s_1 \geq$ [mm]	100
Spacing parallel to free edge	$s_2 \geq$ [mm]	100
Minimum edge distance	$c_{min} =$ [mm]	100

Scheme of distance and spacing in masonry (use category "b" and "c")



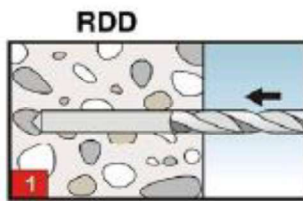
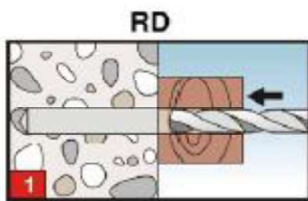
KEW Frame plug RD and RDD 10

Intended Use

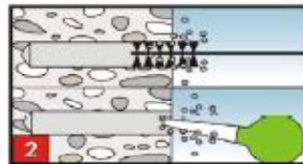
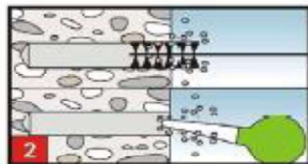
Minimum thickness of member
 Minimum spacing and edge distances in masonry use category "b" and "c"

Annex B 6

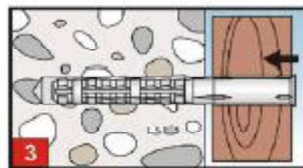
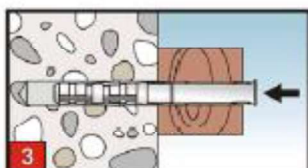
Installation instructions



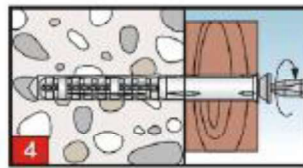
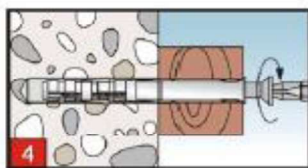
Create a bore hole about observation of the drill method according Table C 3/4/5



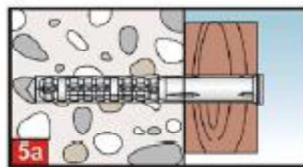
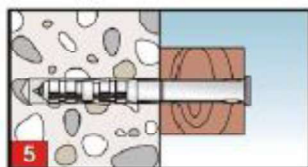
Holes to be cleaned of drilling dust.



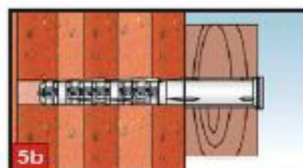
The plastic sleeve is inserted through the fixture by slight hammer blows



The special screw is screwed



Mounted in concrete and solid brick



Mounted in Hollow brick

KEW Frame plug RD and RDD 10

Intended Use
Installation instructions

Annex B 7

Table C1: Characteristic bending resistance of the screw

		galvanised steel	stainless steel
Characteristic bending resistance	$M_{Rk,s}$ [Nm]	11,8	13,7

Table C2: Characteristic resistance of the screw

Failure of expansion element (special screw)		galvanised steel	stainless steel
Characteristic tension resistance	$N_{Rk,s}$ [kN]	14,3	16,6
Characteristic shear resistance	$V_{Rk,s}$ [kN]	7,1	8,3

Table C3: Characteristic resistance for use in concrete for single anchor and anchor group

Pull-out failure (plastic sleeve)			Drill method	24 °C / 40 °C		50 °C / 80 °C	
				RD 10	RDD10	RD 10	RDD10
Concrete ≥ C16/20							
Characteristic resistance	$N_{Rk,p}$ [kN]	Hammer drilling	3,0	5,0	2,0	4,0	
Concrete C12/15							
Characteristic resistance	$N_{Rk,p}$ [kN]	Hammer drilling	2,0	3,5	1,2	3,0	

KEW Frame plug RD and RDD 10

Performances

Characteristic resistance and characteristic bending resistance of the screw
 Characteristic resistance in concrete

Annex C 1

Table C4: Characteristic resistance F_{RK} in [kN] in solid masonry (use category "b") for single anchor and anchor group

Base material	Min. DF or min. size (L x W x H) [mm]	Bulk density class [kg/dm ³]	Minimum compressive strength f_b [N/mm ²]	Drill method	Characteristic resistance F_{RK} [kN]			
					24 °C / 40 °C		50 °C / 80 °C	
					RD	RDD	RD	RDD
Clay brick Mz 20-1,8-NF acc. to EN 771-1:2011	NF (240x116x71)	≥ 1,8	20	Hammer drilling	2,5	4,0 5,0 ¹⁾	2,0	4,0 5,0 ¹⁾
			10		1,5	3,0 3,5 ¹⁾	1,5	3,0 3,5 ¹⁾
Solid sand-lime brick KS 12-1,0-2DF Acc. to EN 771-2:2011	NF (240x115x70)	≥ 1,8	20	Hammer drilling	3,0	4,0 5,0 ¹⁾	2,0	4,0 4,0 ¹⁾
			10		2,0	3,0 3,5 ¹⁾	1,5	3,0

⁴⁾ Only for edge distance $c \geq 150\text{mm}$; intermediate values by linear interpolation.

Table C5: Characteristic resistance F_{RK} in [kN] in hollow or perforated masonry (use category "c") for single anchor and anchor group

Base material	Min. DF or min. size (L x W x H) [mm]	Bulk density class [kg/dm ³]	Minimum compressive strength f_b [N/mm ²]	Drill method	Geometry		charakt. resistance F_{RK} [kN]	
					Annex	Figure	24°C / 40°C	50°C / 80°C
							RDD	RDD
Clay brick Mz 20-1,8-NF acc. to EN 771-1:2011	2DF (240x115x115)	≥ 1,0	12	Rotary drilling	B 3	1	1,2	0,9
Solid sand-lime brick KS 12-1,0-2DF Acc. to EN 771-2:2011	8DF (250x240x237)	≥ 1,4	12	Rotary drilling	B 3	2	2,0	1,5

KEW Frame plug RD and RDD 10

Performances

Characteristic resistance in concrete and in solid masonry
Characteristic resistance in hollow or perforated masonry

Annex C 2

Table C6: Displacements under tension und shear loading in concrete and masonry for single anchor and anchor group

	Tension load			Shear load		
	F ¹⁾ [kN]	δ_{N0} [mm]	$\delta_{N\infty}$ [mm]	F ¹⁾ [kN]	δ_{V0} [mm]	$\delta_{V\infty}$ [mm]
RD 10	1,2	0,01	0,11	2,83	2,2	3,3
RDD 10	2,0	0,02	0,21	2,83	3,0	4,5

¹⁾ Intermediate values by linear interpolation

KEW Frame plug RD and RDD 10

Performances
Displacements in concrete and masonry

Annex C 3