

R-KF2

UNIVERSAL ADHESIVE ANCHOR WITHOUT STYRENE FOR MASONRY SUBSTRATES WITH REBAR

Universal bonded anchor without styrene,
recommended for medium loads, suitable for
use in most construction substrates



FEATURES AND BENEFITS

Available in a three versions with variable curing time

Product with wide spectrum of use in the medium load capacity area

Suitable for multiple use. Partly used product can be reused after fitting new nozzle

Approved for many substrates

Option of use standard manual silicone gun

The most convenient bonded anchor for general pupose use

Ideal for applications where mechanical anchors are not suitable

Two colors - stone & gray

SUBSTRATES



Solid brick



Solid sandlime brick

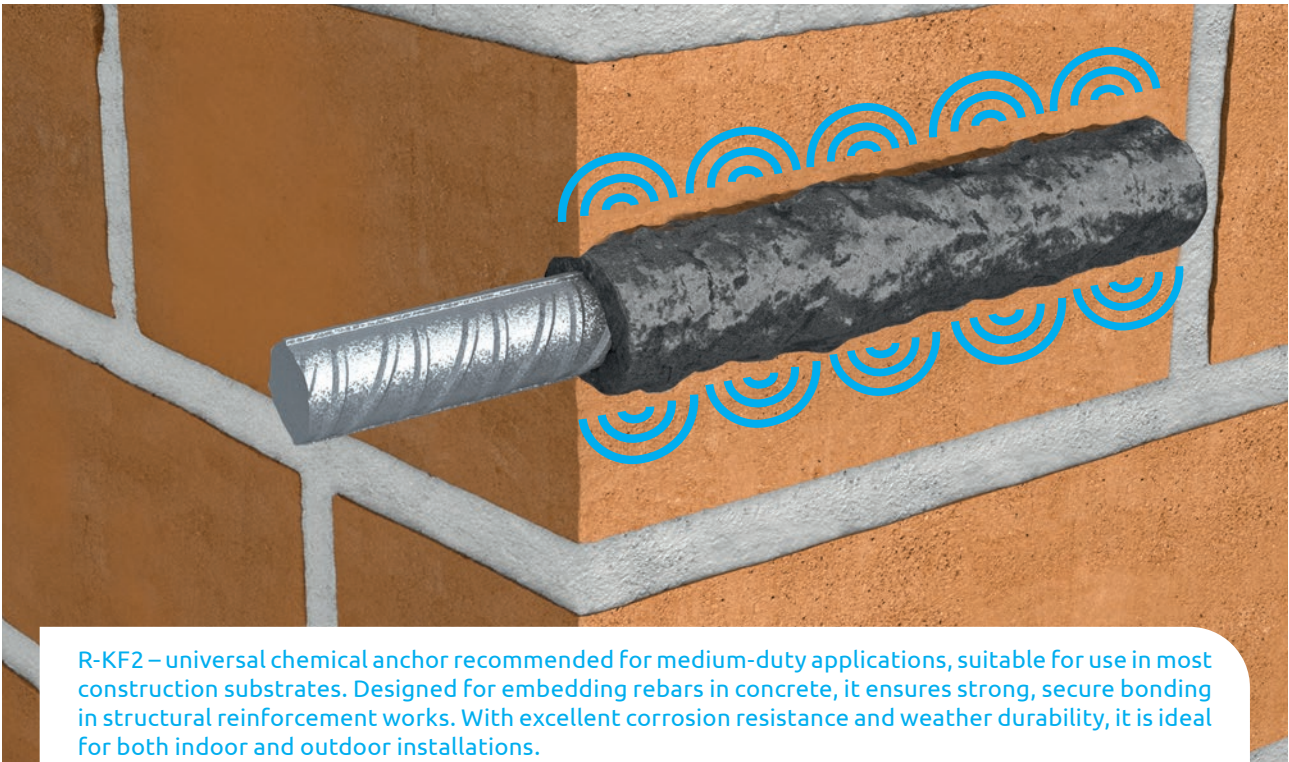


Solid concrete block



Aerated concrete





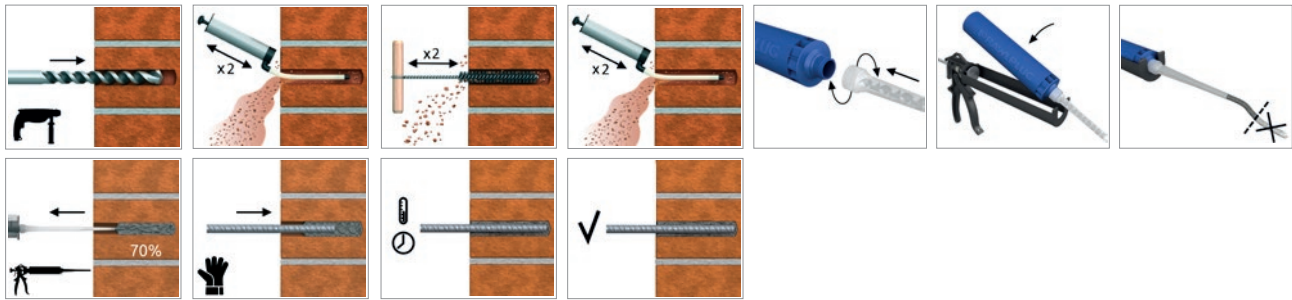
APPLICATIONS

- Installation of partition walls
- Reinforcement of old masonry walls
- Masonry structures



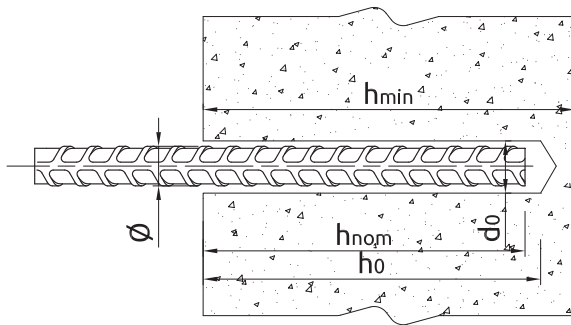
INSTALLATION GUIDE

SOLID WALLS



1. Drill a hole in hammer mode to the required diameter and depth.
2. Clean the hole using a pump and brush:
 - starting from the bottom of the hole, clean it with at least 2 air pumps using a hand pump;
 - clean the hole at least twice using an appropriate brush;
 - again, starting from the bottom, clean the hole with at least 2 more air pumps using a hand pump
3. Unscrew the cap and screw on the mixing nozzle.
4. Place the cartridge in the dispenser.
5. When starting to dispense from a new cartridge, discard the initial portion of resin (approx. 10 cm).
6. Starting from the bottom of the hole, fill 70% of the hole depth with resin.
7. Immediately after dispensing the resin, insert the rod into the hole with a rotating motion. To prevent the rod from slipping out during curing (due to its own weight), use temporary centering wedges. Leave the installed anchor undisturbed until the full curing time has passed. After the resin has cured, remove any excess compound from the surface around the hole using a hammer.

INSTALLATION DATA



Installation recommendations – aerated concrete (without mesh sleeve)

Size			Ø8	Ø10	Ø12	Ø16
Thread diameter	d	[mm]	8	10	12	16
Hole diameter in substrate	d _o	[mm]	10	12	14	18
Hole diameter in fixture	d _f	[mm]	9	12	14	18
Max. installation torque	T _{ist}	[Nm]	2	2	2	2
Min. installation depth	h _{ef} = h _{nom}	[mm]	80	85	95	105
Min. hole depth in substrate	h _o	[mm]	85	90	100	110
Min. edge distance	c _{min}	[mm]	50	50	50	60
Min. spacing	s _{min}	[mm]	50	50	50	60

Installation recommendations – solid masonry substrates (without mesh sleeve)

Size			Ø8	Ø10	Ø12	Ø16
Thread diameter	d	[mm]	8	10	12	20
Hole diameter in substrate	d _o	[mm]	10	12	14	18
Hole diameter in fixture	d _f	[mm]	9	12	14	18
Max. installation torque	T _{ist}	[Nm]	5	8	10	10
Min. installation depth	h _{ef,min} = h _{nom,min}	[mm]	80	85	95	105
Max. installation depth	h _{ef,max} = h _{nom,max}	[mm]	-	-	160	200
Min. hole depth in substrate	h _o	[mm]	h _{ef} + 5			
Min. edge distance	c _{min}	[mm]	50	50	50	60
Min. spacing	s _{min}	[mm]	50	50	50	60

MECHANICAL PROPERTIES

Size			Ø8	Ø10	Ø12	Ø16
f_{uk} = 540 (e.g. B 500 B acc. to BS 4449; B 500 B acc. to SS 560)						
Nominal ultimate tensile strength	f _{uk}	[N/mm ²]	540	540	540	540
Nominal yield strength	f _{yk}	[N/mm ²]	500	500	500	500
Cross sectional area	A _s	[mm ²]	50,3	78,5	113,1	201,1
Elastic section modulus	W _{el}	[mm ³]	50,3	98,2	169,6	402,1
Characteristic bending resistance	M ⁰ _{Rk,s}	[Nm]	32,6	63,6	109,9	260,6
Design bending resistance	M	[Nm]	21,7	42,4	73,3	173,7
f_{uk} = 575 (e.g. B 500 SP acc. to EC2)						
Nominal ultimate tensile strength	f _{uk}	[N/mm ²]	575	575	575	575
Nominal yield strength	f _{yk}	[N/mm ²]	500	500	500	500
Cross sectional area	A _s	[mm ²]	50,3	78,5	113,1	201,1
Elastic section modulus	W _{el}	[mm ³]	50,3	98,2	169,6	402,1
Characteristic bending resistance	M ⁰ _{Rk,s}	[Nm]	34,7	67,7	117,1	277,5
Design bending resistance	M	[Nm]	23,1	45,2	78,0	185,0
f_{uk} = 620 (e.g. G-60 acc. to ASTM 615)						
Nominal ultimate tensile strength	f _{uk}	[N/mm ²]	620	620	620	620
Nominal yield strength	f _{yk}	[N/mm ²]	420	420	420	420
Cross sectional area	A _s	[mm ²]	50,3	78,5	113,1	201,1
Elastic section modulus	W _{el}	[mm ³]	50,3	98,2	169,6	402,1
Characteristic bending resistance	M ⁰ _{Rk,s}	[Nm]	34,7	67,7	117,1	185,9
Design bending resistance	M	[Nm]	23,1	45,2	78,0	123,9

PROCESSING AND CURING TIME

R-KF2 (standard version)

Temperature of substrate	Max. processing time	Min. curing time
[°C]	[min]	[min]
-5 ÷ 0	22	480 (8h)
0 ÷ 5	14	240 (4h)
+5 ÷ +10	9	120 (2h)
+10 ÷ +15	5,5	90 (1,5h)
+15 ÷ +20	3,5	60
+20 ÷ +25	2	45
+25 ÷ +30	1,5	35
+30 ÷ +35	1	30
+35 ÷ +40	1	25

R-KF2-S (version for summer season)

Temperature of substrate	Max. processing time	Min. curing time
[°C]	[min]	[min]
-5 ÷ 0	70	1440 (24h)
0 ÷ +5	43	1080 (18h)
+5 ÷ +10	24	720 (12h)
+10 ÷ +15	15	480 (8h)
+15 ÷ +20	8	360 (6h)
+20 ÷ +25	6	240 (4h)
+25 ÷ +30	5,5	180 (3h)
+30 ÷ +35	4	90 (1,5h)
+35 ÷ +40	3,5	1h

R-KF2-W (version for swinter season)

Temperature of substrate	Max. processing time	Min. curing time
[°C]	[min]	[min]
-20 ÷ -15	45	1140 (24h)
-15 ÷ -10	32	1080 (18h)
-10 ÷ -5	22	480 (8h)
-5 ÷ 0	14	300 (5h)
0 ÷ +5	9	120 (2h)
+5 ÷ +10	6,5	60
+10 ÷ +15	4	45
+15 ÷ +20	2,5	30
+20 ÷ +25	1	15
+25 ÷ +30	45sec	15

Min. resin temp. = 5°C
Max. resin temp. = 25°C

BASIC PERFORMANCE DATA

Performance data for single anchor without influence of edge distance and spacing.

Size		Ø8	Ø10	Ø12	Ø16	Ø8	Ø10	Ø12	Ø16
Embedment depth	[mm]	80	85	95	105	80	85	95	105
MEAN ULTIMATE LOAD									
TENSION LOAD N_{Rum}					SHEAR LOAD V_{Rum}				
Solid clay brick Mz, 2DF min. 20MPa	[kN]	7,8	9,8	11,8	12,9	9,6	12,6	13,6	17,0
Clay masonry units min. 20MPa	[kN]	8,6	10,3	11,4	13,5	10,2	12,3	13,6	17,7
Solid silicate brick, 1DF min 20MPa	[kN]	10,2	12,1	14,6	15,3	10,4	11,2	14,7	20,9
Solid normal weight concrete brick Vbn, 1DF, min. 6MPa	[kN]	4,1	5,2	5,6	7,0	5,8	6,6	7,1	9,7
Solid blocks min. 7,5MPa	[kN]	5,7	7,2	8,0	8,7	7,2	7,7	10,4	12,7
Autoclaved aerated concrete AAC2 min. 2MPa	[kN]	1,7	2,4	2,7	-	1,6	2,2	2,6	-
Autoclaved aerated concrete AAC7 min. 6MPa	[kN]	4,0	4,9	5,4	-	5,8	7,0	6,3	-
Aggregate concrete min. 3,6MPa	[kN]	2,2	4,0	4,7	4,9	2,4	3,3	4,7	5,2
Aggregate concrete min. 7,3MPa	[kN]	4,4	5,8	7,5	8,1	5,3	6,6	8,6	10,1

BASIC PERFORMANCE DATA

Performance data for single anchor without influence of edge distance and spacing.

Size		Ø8	Ø10	Ø12	Ø16	Ø8	Ø10	Ø12	Ø16
Embedment depth	[mm]	80	85	95	105	80	85	95	105
CHARACTERISTIC LOAD									
TENSION LOAD N_{Rk}					SHEAR LOAD V_{Rk}				
Solid clay brick Mz, 2DF min. 20MPa	[kN]	6,5	8,0	10,0	10,5	9,5	12,0	13,5	17,0
Clay masonry units min. 20MPa	[kN]	7,0	8,5	9,5	11,0	10,0	12,0	13,5	17,5
Solid silicate brick, 1DF min 20MPa	[kN]	8,5	10,0	12,5	13,0	10,0	11,0	14,5	20,5
Solid normal weight concrete brick Vbn, 1DF, min. 6MPa	[kN]	3,5	4,0	4,5	6,0	5,5	6,5	7,0	9,5
Solid blocks min. 7,5MPa	[kN]	4,5	6,0	6,5	7,0	7,0	7,5	10,0	12,5
Autoclaved aerated concrete AAC2 min. 2MPa	[kN]	1,0	1,5	2,0	-	1,5	2,0	2,5	-
Autoclaved aerated concrete AAC7 min. 6MPa	[kN]	3,0	4,0	4,0	-	5,0	6,0	6,0	-
Aggregate concrete min. 3,6MPa	[kN]	1,5	3,0	4,0	4,0	7,0	7,5	10,0	12,5
Aggregate concrete min. 7,3MPa	[kN]	3,5	4,5	6,0	6,5	5,0	6,5	8,5	10,0
DESIGN LOAD									
TENSION LOAD N_{Rd}					SHEAR LOAD V_{Rd}				
Solid clay brick Mz, 2DF min. 20MPa	[kN]	2,6	3,2	4,0	4,2	3,8	4,8	5,4	6,8
Clay masonry units min. 20MPa	[kN]	2,8	3,4	3,8	4,4	4,0	4,8	5,4	7,0
Solid silicate brick, 1DF min 20MPa	[kN]	3,4	4,0	5,0	5,2	4,0	4,4	5,8	8,2
Solid normal weight concrete brick Vbn, 1DF, min. 6MPa	[kN]	1,4	1,6	1,8	2,4	2,2	2,6	2,8	3,8
Solid blocks min. 7,5MPa	[kN]	1,8	2,4	2,6	2,8	2,8	3,0	4,0	5,0
Autoclaved aerated concrete AAC2 min. 2MPa	[kN]	0,5	0,8	1,0	-	0,8	1,0	1,3	-
Autoclaved aerated concrete AAC7 min. 6MPa	[kN]	1,5	2,0	2,0	-	2,5	3,0	3,0	-
Aggregate concrete min. 3,6MPa	[kN]	0,6	1,2	1,6	1,6	2,8	3,0	4,0	5,0
Aggregate concrete min. 7,3MPa	[kN]	1,4	1,8	2,4	2,6	2,0	2,6	3,4	4,0
RECOMMENDED LOAD									
TENSION LOAD N_{Rec}					SHEAR LOAD V_{Rec}				
Solid clay brick Mz, 2DF min. 20MPa	[kN]	1,9	2,3	2,9	3,0	2,7	3,4	3,9	4,9
Clay masonry units min. 20MPa	[kN]	2,0	2,4	2,7	3,1	2,9	3,4	3,9	5,0
Solid silicate brick, 1DF min 20MPa	[kN]	2,4	2,9	3,6	3,7	2,9	3,1	4,1	5,9
Solid normal weight concrete brick Vbn, 1DF, min. 6MPa	[kN]	1,0	1,1	1,3	1,7	1,6	1,9	2,0	2,7
Solid blocks min. 7,5MPa	[kN]	1,3	1,7	1,9	2,0	2,0	2,1	2,9	3,6
Autoclaved aerated concrete AAC2 min. 2MPa	[kN]	0,4	0,5	0,7	-	0,5	0,7	0,9	-
Autoclaved aerated concrete AAC7 min. 6MPa	[kN]	1,1	1,4	1,4	-	1,8	2,1	2,1	-
Aggregate concrete min. 3,6MPa	[kN]	0,4	0,9	1,1	1,1	2,0	2,1	2,9	3,6
Aggregate concrete min. 7,3MPa	[kN]	1,0	1,3	1,7	1,9	1,4	1,9	2,4	2,9

PRODUCT COMMERCIAL DATA

Product Code	Packaging	Version	Volume	Quantity			EAN
				Box	Outer	Pallet	
			[ml]	[pcs]	[pcs]	[pcs]	
R-KF2-175	cartridge	standard	175	10	10	840	5906675641638
R-KF2-300	cartridge	standard	300	10	10	840	5906675431017
R-KF2-300-S	cartridge	summer	300	10	10	840	5906675641652
R-KF2-300-STONE	cartridge	standard	300	10	10	840	5906675641645
R-KF2-410	cartridge	standard	410	10	10	560	5906675641669
R-KF2-410-S	cartridge	summer	410	10	10	560	5906675641683
R-KF2-410-STONE	cartridge	standard	410	10	10	560	5906675641676
R-KF2-300-W	cartridge	winter	300	10	10	840	5906675652351
R-KF2-410-W	cartridge	winter	410	10	10	650	5906675652368

RELATED PRODUCTS

DRILLING	POWER TOOLS	Rotary hammer drill SDS plus, 850 W R-PRH26850	Cordless rotary hammer drill 18V SDS plus 2,0J R-PRH18
	ACCESSORIES	Hollow drill bits Dustlessdrill SDS Plus RT-SDSH	Drill bits Aggressor SDS Plus RT-SDSA
		Drill bits Rebardrill SDS Plus RT-SDSR	

RELATED PRODUCTS

CLEANING	AUTOMATIC CLEANING	Brush with a threaded coupling for the installation of extensions R-BRUSH TC 	Extension R-BRUSH-EXT-H-TC  	Extension with handle R-BRUSH-EXT-H-SDS  
	AIR CLEANING SYSTEM	Extension hose for the applications R-NOZ-EXT 	Blow-through nozzle for cleaning of holes R-NOZ-ADAPTER 	
DOZING	MANUAL CLEANING	Extension with handle for manual cleaning R-BRUSH-TC 	Extension R-BRUSH-EXT-LT 	Extension with handle for manual cleaning R-BRUSH-EXT-LH  
	DISPENSING SYSTEM	Manual dispensing system for cartridges R-GUN-MULTI 	Manual dispensing system for cartridges R-GUN-300-N 	Manual dispensing system for cartridges R-GUN-380-N 
DOZING	ACCESSORIES	Piston Plug R-NOZ-P-16-26 	Extension hose for the applications R-NOZ-EXT 	Mixer nozzle R-NOZ 
ANCHORING	ACCESSORIES	Rebar 		