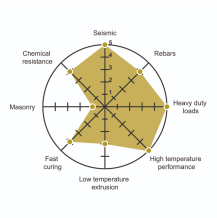
Technical Sheet

KEM H

Hybrid High Strength, High-Temperature Resistant Anchoring Adhesive

KEM H is a high performance hybrid anchoring adhesive for heavy-duty structural fixings and can be used even at high temperatures.
This formula provides high performances when anchoring threaded rods and rebar in cracked and uncracked concrete.
Working temperature: from -40 up to +160°C short period and from -40 up to +100°C long period.





Features

Material

Hybrid

Applications

Applications

- Steel constructions
- Wood to concrete structural fixings
- Industrial construction
- Steel and metal construction (railings, brackets, etc.)
- Anchorages for gates and machines
- Post-installed rebar connections

Suitable for

- Threaded rods and rebar in cracked and uncracked concrete
- **Suitable base materials:**
  Concrete
  Solid brick
  Honeycomb
  Cell like clay brick
  Light weight honeycomb brick
  Hollow dense aggregate block
  Hollow light aggregate block
  Aerated concrete (partially suitable)
  Solid stone[1)]
  Wood
  [1)] For application on natural stone or marble, carry out test and wait 24/48 hours for any reactions

For installation instructions and information please refer to Technical Documents.

Technical Sheet

KEM H
Hybrid High Strength, High-Temperature Resistant Anchoring Adhesive

Technical Data

KEM H

Reference	Chemical fixings dimensions				
	Info product				
	Title	Color	Content[ml]	Storage months	Qty[pcs]
9360100000000	KEM H 936	Grey	420	18.0	12

Spacing, edge distance and member thickness - Concrete

Reference	Chemical fixings Installation data				
	Spacing, edge distance and member thickness				
	BFK embedment depths[kN]				
	Characteristic spacing - scr,N	min. spacing - smin	Characteristic edge distance - ccr,N[mm]	Min. edge distance - cmin[mm]	Min. member thickness - hmin[mm]
KEM H + M8	240	40	120	35	110
KEM H + M10	270	50	135	40	120
KEM H + M12	330	60	165	45	140
KEM H + M16	380	75	190	50	161
KEM H + M20	510	95	255	60	218
KEM H + M24	630	115	315	65	266
KEM H + M27	720	125	360	75	300
KEM H + M30	810	140	405	80	340

Design resistance - Tension - NRd [kN] – Carbon steel 5.8

Reference	Chemical fixings Installation data	Chemical fixings Loads	
	Embedment depth[mm]	Design resistance – Carbon steel 5.8[kN]	
	hef	Tension - NRd (1)[kN]	
		Cracked concrete	Non-cracked concrete
		C20/25	C20/25
KEM H + M8	80	9.4	12.3
KEM H + M10	90	14.1	19.3
KEM H + M12	110	22.1	28
KEM H + M16	125	32.1	45.8
KEM H + M20	170	50.9	72.7
KEM H + M24	210	69.9	99.8
KEM H + M27	240	85.4	121.9
KEM H + M30	270	101.9	145.5

Technical Sheet

KEM H

Hybrid High Strength, High-Temperature Resistant Anchoring Adhesive

Design resistance - Shear - VRd [kN]

Reference	Chemical fixings Installation data	Chemical fixings Loads		
	Embedment depth[mm]	Design resistance[kN]		
	hef	Shear - VRd (1-2)[kN]		
		Static and quasi-static loads[kN]		
		Carbon steel 5.8	Carbon steel 8.8	Stainless steel A4 70
KEM H + M8	80	8.8	11.8	8.3
KEM H + M10	90	13.9	18.6	13
KEM H + M12	110	20.1	26.9	18.9
KEM H + M16	125	37.6	50.2	35.2
KEM H + M20	170	58.8	78.4	55
KEM H + M24	210	84.7	113	79.2
KEM H + M27	240	110.1	146.9	48.2
KEM H + M30	270	134.6	179.5	58.9

Installation

Installation parameters - Concrete

Reference	Chemical fixings Installation data					
	Embedment depth[mm]	Installation parameters				
	hef	Ø drilling diameter[mm]	Depth of the drilling hole[mm]	Ø max. fixture hole[mm]	Ouverture de clé sur plat[kN]	Installation Torque[Nm]
KEM H + M8	80	10	80	9	13	10
KEM H + M10	90	12	90	12	17	20
KEM H + M12	110	14	110	14	19	40
KEM H + M16	125	18	125	18	24	60
KEM H + M20	170	24	170	22	30	100
KEM H + M24	210	28	210	26	36	170
KEM H + M27	240	30	240	30	41	250
KEM H + M30	270	35	270	33	46	300

Notes to the load charts of threaded rods on concrete:
1kN ≈ 100 kgf
(1) Single anchor without influence from anchor spacing and edge distances in concrete C20/25
(2) Design Method acc. to EN 1992-4:2018 (γc= 1,5; ψsus= 1)
(3) The design loads Nrd and Vrd derive from the characteristic loads on the ETA certification and are inclusive of the partial safety factors ym
(4) The recommended loads N and V derive from the characteristic loads on the ETA certification and are inclusive of the partial safety factors γf=1.4 and γm
(5) Values valid for temperature 50°C on the long term and up to 80°C on the short term. For higher temperatures see the certification ETA
(6) M27 and M30 stainless steel threaded rods class A4 50
(7) Value of pure shear with distance from the edge C ≥ 10xhnom
(8) Seismic resistances include the factors αeq = 0,85 (single anchor under tension in the case of concrete cone failure)
(9) Seismic C2 tension resistances refer to threaded rods min class 8.8 for carbon steel and 70 for stainless steel
(10) For all other conditions and more detailed information please refer to Technical Sheet and ETA certifications

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