



Declaration of Performance

DoP Nr. 0793-CPR-8.1-42



1. Unique Identification code of the product-type: **KARL undercut anchor KH for HPL in accordance with EN 438-7:2005**
2. Type number: **KH 4; KH 5,5**
3. Intended use or uses of the construction product: **Fastener for the rear fixing of facade panels made of high-pressure decorative laminates (HPL) in accordance with EN 438-7:205**
4. Manufacturer: **KEIL Befestigungstechnik GmbH, Olpener Str. 13a, 51766 Engelskirchen, GERMANY**
5. Authorised representative: -
6. System or systems of assessment and verification of constancy of performance: **System 2+**
7. Harmonised Standard: -
8. European evaluation document: **EAD 330030-00-0601**
European Technical Assessment: **ETA-23/1021**
Technical Assessment Body: **DIBt**
Notified Body: **0793 – Güteschutz Beton**
9. Declared Performance:

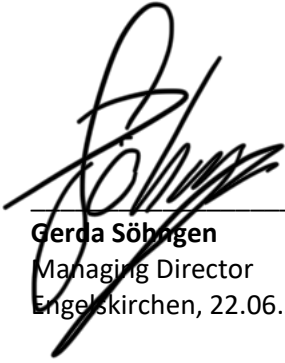
Mechanical resistance and stability (BWR 1)

Essential characteristic	Performance
Characteristic resistance to breakout or pull-out failure under tension load	See Annex C 1 and C 2
Characteristic resistance to breakout or pull-out failure under shear load	See Annex C 1 and C 2
Characteristic resistance to breakout or pull-out failure under combined tension and shear load	See Annex C 1 and C 2
Edge distance and spacing	See Annex C 1 and C 2
Durability	Corrosion Resistance Class (CRC) III in accordance with EN 1993-1-4:2015
Characteristic resistance to steel failure under tension and shear loads	See Annex C 1 and C 2

Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire	Class A1

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9. This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4. Signed for and on behalf of the manufacturer by:



Gerda Söhngen
Managing Director
Engelskirchen, 22.06.2026



Markus Fuchs
QM Manager

Table C1: characteristic values of the KARL Undercut Anchor KH hs=4,0

			HPL (General)			Fundermax (Max Compact)	Resopal (Resoplan F)	Trespa (Meteon FR)
Setting depth (=embedment depth)	$h_s =$	[mm]	4,0			4,0	4,0	4,0
spacing	$a \leq$	[mm]	337	1000	1250	1000 ²⁾	1000 ²⁾	1000 ²⁾
resistance to	tension load $N_{Rk} =$	[kN]	1,12	0,85	0,76	1,23	0,85	1,37
	shear load $V_{Rk} =$	[kN]	3,01			4,15	3,01	3,95
partial safety factor ¹⁾	$\gamma_M =$	[-]	2,0			2,0	2,0	2,0
edge distance	a_{rx} or $a_{ry} \geq$	[mm]	50			50	50	50
Value for tri-linear function with combined tension and shear load	X	[-]	1,0					

¹⁾ in absence of other national regulations

²⁾ additional spacings see Annex C 2

Table C2: characteristic values of the KARL Undercut Anchor KH hs=5,5

			HPL (General)			Fundermax (Max Compact)	Resopal (Resoplan F)	Trespa (Meteon FR)
Setting depth (=embedment depth)	$h_s =$	[mm]	5,5			5,5	5,5	5,5
spacing	$a \leq$	[mm]	337	1000	1250	1000 ²⁾	1000 ²⁾	1000 ²⁾
resistance to	tension load $N_{Rk} =$	[kN]	1,78	1,25	1,05	1,38	1,25	1,57
	shear load $V_{Rk} =$	[kN]	3,95			3,81	3,95	3,06
partial safety factor ¹⁾	$\gamma_M =$	[-]	2,0			2,0	2,0	2,0
edge distance	a_{rx} or $a_{ry} \geq$	[mm]	50			50	50	50
Value for tri-linear function with combined tension and shear load	X	[-]	1,0					

¹⁾ in absence of other national regulations

²⁾ additional spacings see Annex C 2

KARL undercut anchor KH for HPL in accordance with EN 438-7:2005

Performance
Characteristic values for the design of KARL undercut anchor KH

Annex C 1

Table C3: characteristic values for KARL Undercut Anchor KH with different span widths for 8 mm Panel

			Fundermax (Max Compact)			Resopal (Resoplan F)			Trespa (Meteon FR)			
Setting depth (=embedment depth)	$h_s =$	[mm]	4,0			4,0			4,0			
Spacing	$a \leq$	[mm]	337	1000	1250	337	1000	1250	337	1000	1250	
resistance to	tension load	$N_{Rk} =$	[kN]	1,51	1,23	1,06	1,12	0,85	0,76	1,37	1,37	1,23
	shear load	$V_{Rk} =$	[kN]	4,15			3,01			3,95		

Table C4: characteristic values for KARL Undercut Anchor KH with different span widths for 10 mm Panel

			Fundermax (Max Compact)			Resopal (Resoplan F)			Trespa (Meteon FR)			
Setting depth (=embedment depth)	$h_s =$	[mm]	5,5			5,5			5,5			
spacing	$a \leq$	[mm]	337	1000	1250	337	1000	1250	337	1000	1250	
resistance to	tension load	$N_{Rk} =$	[kN]	1,73	1,38	1,04	1,78	1,25	1,05	1,84	1,57	1,28
	shear load	$V_{Rk} =$	[kN]	3,81			3,95			3,06		

KARL undercut anchor KH for HPL in accordance with EN 438-7:2005

Performance

Characteristic values for the design of the anchor with different span width

Annex C 2