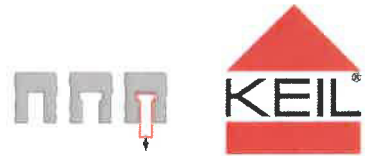




Declaration of Performance

DoP no. 0793-CPR-8.1-10



1. Unique Identification code of the product-type: **KEIL undercut anchor KH for "STARON facade panels"**
2. Type number: **KH 7**
3. Intended use or uses of the construction product: **Fastener for rear fixing for facade panels made of one-third of acrylic resin and two-third of natural mineral aluminium hydroxide**
4. Manufacturer: **LOTTE Advanced Materials Europe GmbH, Kölner Straße 12, 65760 Eschborn, 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-16/0091**
Technical Assessment Body: **DIBt**
Notified Body: **0793 – Güteschutz Beton**

9. Declared Performance:

Mechanical resistance and stability (BWR 1)

Essential characteristic	Performance
Characteristic resistance for tension and shear load	See Annex C 1
Anchor distances and spacing	See Annex C 1

Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction of fire	Class A1
Resistance of fire	No performance assessed

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:

KEIL Befestigungstechnik GmbH
Olpenener Straße 13 a · 65766 Engelskirchen
www.keil.pro

Christian Schmidt
Managing Director
Engelskirchen, 10.10.2019

KEIL Befestigungstechnik GmbH
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Dipl.-Ing. Georg Miebach
Product Manager

Table C1: Characteristic values of the anchor and façade panel

characteristic values of façade panel	of	panel thickness	$h \geq$	[mm]	12,0	
	values	char. resistance to bending stress	$\sigma_{Rk} =$	[N/mm ²]	37,5	
		Mean value of modulus of elasticity	$E_{mean} =$	[N/mm ²]	9500	
		thermal coefficient	$\alpha_T =$	[1/K]	$36,0 \times 10^{-6}$	
		dead load	$g_k =$	[kN/m ²]	0,22	
		partial safety factor ¹⁾	$\gamma_M =$	[-]	1,8	
characteristic values of anchor		anchorage depth	$h_b =$	[mm]	7	
	characteristic resistance to	tension load ²⁾	$N_{Rk} =$	[kN]	2,5	2,6
		shear load ²⁾	$V_{Rk} =$		2,6	3,2
		edge distance ³⁾	$a_r \geq$	[mm]	50	100
		spacing	$a \geq$	[mm]	100	
		double agraffe	$a_D \geq$	[mm]	45	
		partial safety factor ¹⁾	$\gamma_M =$	[-]	1,8	

¹⁾ In absence of other national regulations.

²⁾ in case of coincident stress of an anchor due to tension and shear load the equation according to Annex B 3 shall be observed

³⁾ For small fitted pieces, differential and fill-in pieces the edge distance and spacing shall be chosen constructively

KEIL undercut anchor KH for "STARON facade panels"

Performances

Characteristic values of the anchor and façade panel

Annex C 1