

Declaration of Performance

DoP-07/0291-KI-10

1. Unique identification code of the product-type:

KI-10



The photo depicts an example of a product of the given type of goods

2. Intended use/es:

general type

Plastic anchor

to be applied in

Nailed-in plastic anchors for fixing of external thermal insulation composite systems with rendering in concrete and masonry

option / category

Loading

subject to wind suction

material

KOELNER KI-10 nailed-in plastic anchor consists of anchor sleeve with a plate made of polypropylene and an accompanying specific nail as an expansion pin made of glass fibre reinforced polypropylene. KOELNER KI-10 PA nailed-in plastic anchor consists of anchor sleeve with a plate made of polypropylene and an accompanying specific nail as an expansion pin made of glass fibre reinforced polyamide. KOELNER KI-10 M nailed-in plastic anchor consists of anchor sleeve with a plate made of polypropylene and an accompanying specific nail as an expansion pin made of steel. KOELNER KI-10, KOELNER KI-10PA and KOELNER KI-10M anchors may in addition be combined with the plates KWL-90, KWL-110 and KWL-140. Natural, "finke" blue, blue 5010, brown 8017, red 3000, red 2008, white 9003, black, green 6029, yellow 1020, grey 7040, red.

3. Manufacturer:

Rawlplug S.A.

ul. Kwidzyńska 6, 51-416 Wrocław, PL

www.rawlplug.com

4. System/s of AVCP:

System 2+

5. European Assessment Document:

EAD 330196-01-0604 Plastic anchors made of virgin or non-virgin material for fixing of external thermal insulation composite systems with rendering

Utilization category: A, B, C, D, E

6. European Technical Assessment:

ETA-07/0291 edition of 2017-12-28

7. Technical Assessment Body:

Instytut Techniki Budowlanej

8. Notified body/ies:

1488 on the basis of:

- initial inspection of the manufacturing plant and of factory production control
- continuing surveillance, assessment and evaluation of factory production control

issued a certificate **1488-CPR-0368/Z**

9. Declared performance/s:

Essential Characteristics:

Technical Specification	Basic requirements according to CPR		Remarks:
ETA-07/0291	[1]	Mechanical resistance and stability	Declared values on the page 2
	[4]	Operational safety	Such criteria as those significant for [1]

Table C1: Characteristic resistance to tension loads N_{Rk} , kN in concrete and in masonry for single anchor

Category	Base material	Bulk density [kg/dm ³]	Min. compressive strength [N/mm ²]	Referring standard	N_{Rk} [kN]			Drill method
					KI-10	KI-10PA	KI-10M	
A	Concrete C12/15			EN 206-1	0,5	0,4	0,5	hammer
	Concrete C16/20 ÷ C50/60			EN 206-1	0,5	0,4	0,5	
B	Clay brick	≥1,70	30,0	EN 771-1	0,5	0,4	0,4	hammer
	Calcium silicate brick (ie. Kalksandstein KS NF 20-2.0 Vollstein acc. to DIN 106)	≥2,00	20,0	EN 771-2	0,6	0,4	0,6	
C	Calcium silicate hollow block (for example Kalksandstein KS L-R(P) 8 DF Lochstein acc. to DIN 106)	≥1,60	12,0	EN 771-2	0,6	0,4	0,5	rotary
	Perforated ceramic brick (for example Hlz B - 1.0 1NF 12-1 acc. to DIN 105)	≥0,95	12,0	EN 771-1	0,4	0,3	0,4	
	Perforated ceramic brick (for example Hlz B - 1.0 3NF 12 - 1 acc. to DIN 105)	≥0,95	12,0	EN 771-1	0,4	0,4	0,4	
	Vertically perforated porosited block (for example Porotherm 25 P+W)	≥0,80	15,0	EN 771-1	0,4	0,4	0,3	
	Vertically perforated ceramic block (for example MEGA-MAX 250)	≥0,80	15,0	EN 771-1	0,3	0,4	0,3	
	Lightweight concrete hollow block (for example Hbl acc. to DIN 18151)	≥0,80	2,0	EN 771-3	0,4	0,4	0,4	
D	Lightweight concrete block	1,56	20,0	EN 771-3	0,5	0,75	0,6	hammer
E	Autoclaved aerated concrete block	0,35	2,0	EN 771-4	0,1	0,1	0,1	rotary
Partial safety factor for anchor resistance γ_{M2}		2,0						
1) Min. "a" value. For elements with lower value of "a" the load tests on the construction site are required.								
2) Valid in absence of national regulations								

Table C2: Point thermal transmittance acc. to EOTA TR 025

Anchor type	Insulation thickness H_0 [mm]	Point thermal transmittance χ [W/K]
KI-10 and KI-10PA	45-195	0
KI-10M	45	0,006
	150	0,004
	195	0,004
	235	0,003

Table C3: Plate stiffness acc. to EOTA TR 026

Anchor type	Plate diameter d_{plate} [mm]	Load resistance of the anchor plate $N_{U,m}$ [kN]	Plate stiffness $N_{0,m}$ [kN/mm]
KI-10 i KI-10PA	60	2,1	0,5
KI-10M	60	2,6	0,4

Table C4: Displacements

Category	Base material	Bulk density [kg/dm ³]	Min. compressive strength [N/mm ²]	N _{Rk} /3 [kN]			δ (N _{Rk} /3) [mm]		
				KI-10	KI-10PA	KI-10M	KI-10	KI-10PA	KI-10M
A	Concrete C12/15			0,17	0,13	0,17	0,60	0,95	0,63
	Concrete C16/20 ÷ C50/60			0,17	0,13	0,17	0,60	0,95	0,63
B	Clay brick	≥1,70	≥30,0	0,17	0,13	0,13	0,93	1,05	0,76
	Calcium silicate brick (ie. Kalksandstein KS NF 20-2.0 Vollstein acc. to DIN 106)	≥2,00	≥20,0	0,20	0,13	0,20	0,86	0,96	0,75
C	Calcium silicate hollow block (for example Kalksandstein KS L-R(P) 8 DF Lochstein acc. to DIN 106)	≥1,60	≥12,0	0,20	0,13	0,17	0,73	0,90	0,57
	Perforated ceramic brick (for example Hlz B – 1.0 1NF 12-1 acc. to DIN 105)	≥0,95	≥12,0	0,13	0,10	0,13	0,84	0,67	0,52
	Perforated ceramic brick (for example Hlz B – 1.0 3NF 12 - 1 acc. to DIN 105)	≥0,95	≥12,0	0,13	0,13	0,13	0,59	0,84	0,64
	Vertically perforated porosited block (for example Porotherm 25 P+W)	≥0,80	≥15,0	0,13	0,13	0,10	0,56	0,60	0,49
	Vertically perforated ceramic block (for example MEGA-MAX 250)	≥0,80	≥15,0	0,10	0,13	0,10	0,61	0,64	0,74
	Lightweight concrete hollow block (for example Hbl acc. to DIN 18151)	≥0,80	≥2,0	0,13	0,13	0,13	0,53	0,72	0,57
D	Lightweight concrete block	1,56	≥20,0	0,17	0,25	0,20	0,99	0,92	0,61
E	Autoclaved aerated concrete block	0,35	≥2,0	0,03	0,03	0,03	0,50	0,41	0,40

1) Min. "a" value. For elements with lower value of "a" the load tests on the construction site are required.

The performance of the product identified above is in conformity with the set of declared performance/s.
This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of manufacturer:

Sławomir Jagła
Proxy of the Quality Management System
Wrocław, 11.07.2018.

PEŁNOMOCNIK SYSTEMU
ZARZĄDZANIA JAKOŚCIĄ

Jagła
mgr Sławomir Jagła