

Section 1. PRODUCT DESCRIPTION

FRAME PLUG WITH DOUBLE THREADED SCREW – KPD

Sleeves of frame plug are made of polyamide with a specially shaped zinc-plated double threaded screw. It is designed for fixing of downpipe clamping harnesses, ventilation ducts or cable containment systems. Used metric thread M8 enables installation of most clips and clamps. Frame plug features very high strength and can be installed problem-free in various materials.

Types of substrates on which frame plug KPD can be installed:

- Normal concrete
- Solid clay brick
- Perforated ceramic brick
- Autoclaved aerated concrete



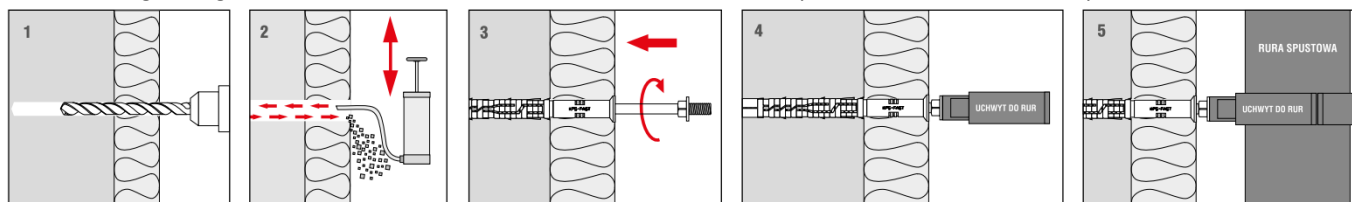
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Frame plugs KPD hold National Technical Assessment: ITB-KOT-2018/0528 Rev. 2

Section 2. METHOD OF INSTALLATION

1. Original frame plugs delivered by the manufacturer can be used only
2. Before installation identify a substrate in which the plug is to be installed and compare loads which the plug carries to load-bearing capacity values given in Product Data Sheet or National Technical Assessment
3. Select an adequate length of the plug so that expansion zone is in the construction material of the wall (thickness of member being fixed matches max. usable length of the plug – t_{fix})
4. Use proper method of drilling according to a substrate type (holes in brickwork substrate made of hollow or autoclaved aerated concrete blocks should be drilled using a drill without impact)
5. Diameter of drilled holes should match diameter of the plugs used
6. Drilled holes in substrates of solid materials should be deeper by min. 10mm compared to the plug anchorage depth
7. Clean the holes in solid materials of drillings with a back and forth motion of the drill at a reduced speed
8. Then insert the plug into a drilled hole, and drive the screw until it completely penetrates the sleeve
9. Forceful tightening of the screw can result in its failure which is not covered by the manufacturer's warranty



PRODUCT DATA SHEET – KPD

Section 3. TECHNICAL DATA

TECHNICAL PARAMETERS		
Parameter	Unit	Value
Plug diameter	d_k [mm]	10/12*
Hole/drill diameter	d_o [mm]	10/12*
Anchorage depth	h_{eff} [mm]	70
Drilled hole depth	h_o [mm]	80
Thread diameter	D [mm]	M8
Wrench size	[-]	SW-10
Sleeve material	[-]	PA - polyamide
Screw material	[-]	Zinc-plated steel
National Technical Assessment	[-]	ITB-KOT-2018/0528

*for KPD 10/KPD 12

INSTALLATION PARAMETERS			
Substrate type	Min. substrate thickness	Min. distance from edge	Min. axial distance
	h_{min} [mm]	c_{min} [mm]	L_{os} [mm]
Normal concrete	105	140	140
Solid clay brick	105	140	210
Perforated ceramic brick	105	140	210
Autoclaved aerated concrete	105	140	210

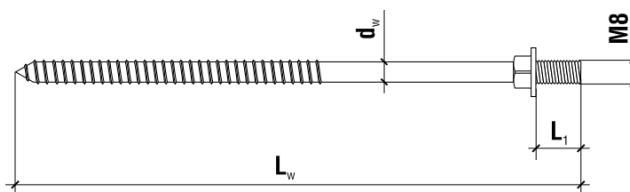
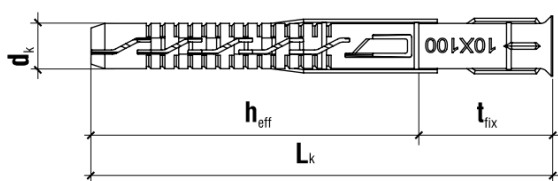
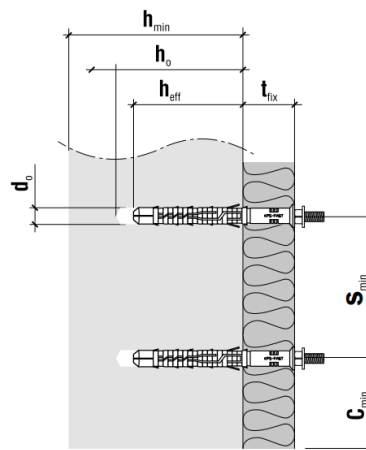
RESISTANCE				
Substrate type	Design resistance [kN]			
	KPD 10		KPD 12	
	$N_{R,d}$	$V_{R,d}$	$N_{R,d}$	$V_{R,d}$
Normal concrete ⁽¹⁾	0,83	1,2	0,83	1,2
Solid clay brick ⁽²⁾	1,0	2,0	0,8	1,6
Perforated ceramic brick ⁽³⁾	0,48	0,96	0,48	0,96
Autoclaved aerated concrete ⁽⁴⁾	1,0	1,6	1,0	1,6

⁽¹⁾ class C20/25 ÷ C50/60 according to PN-EN 206+A1:2016

⁽²⁾ class 25 according to PN-EN 771-1+A1:2015

⁽³⁾ class 15 according to PN-EN 771-1+A1:2015, with wall thickness 12mm

⁽⁴⁾ type 600 and class 4 according to PN-EN 771-4+A1:2015



SELECTION TABLE					
Product code	Sleeve diameter and length	Screw diameter and length	Max. usable length	Drive type	Number of pieces in a box
	$d_k \times L_k$ [mm]	$d_w \times L_w$ [mm]	t_{fix} [mm]	[-]	[pcs]
KPD-10100	10x100	7x105	30	SW-10	50
KPD-10160	10x160	7x165	90	SW-10	50
KPD-10200	10x200	7x205	130	SW-10	25
KPD-12100	12x100	8x105	30	SW-10	25
KPD-12160	12x160	8x165	90	SW-10	25
KPD-12200	12x200	8x205	130	SW-10	25
KPD-12260	12x260	8x265	190	SW-10	25
KPD-12300	12x300	8x305	230	SW-10	25

Section 4. REMARKS

1. All previous versions of this Product Data Sheet shall cease to be valid
2. Data given in this Product Data Sheet is in accordance with current knowledge and published in good faith. KLIMAS Sp. z o.o. is not responsible for correctness and quality of the fixing if recommendations regarding method of use and installation are not followed.