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PRODUCT DATA SHEET – SMø6 and SMNø6

Section 1. PRODUCT DESCRIPTION

HAMMER DRIVE PLUG – SM/SMN

Hammer drive plug SM/SMN comprises a polyethylene or polyamide sleeve and a countersunk head screw made of electroplated coatings or non-electrolytically applied zinc flake coatings steel. It is designed for fixing of wood and wood-based members. Increased head diameter ensures much better holding power of the elements being installed, and countersunk section provides reliable installation and eliminates damage to the screw when driving.

Types of substrates on which hammer drive plug SM/SMN can be installed:

- **Normal concrete (use category A)**
- **Solid masonry (use category B)**
- **Lightweight aggregate concrete (use category D)**
- **Autoclaved aerated concrete (use category E)**

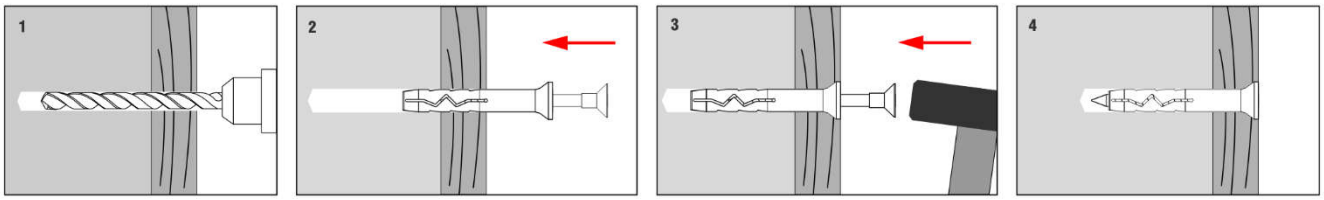
SM (PE-HD)

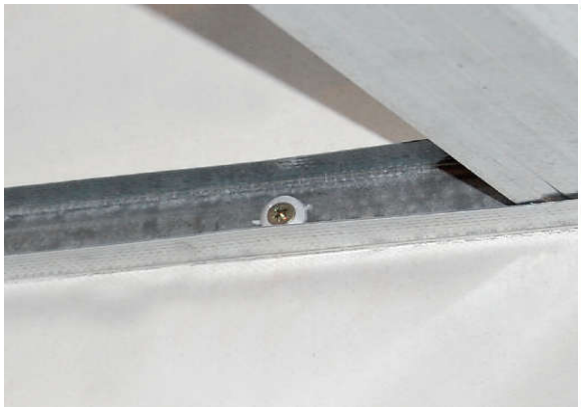
SMN (PA6)

Hammer drive plugs hold European Technical Assessment: ETA-19/0156 CE

Section 2. METHOD OF INSTALLATION

1. Original hammer drive plugs delivered by the manufacturer can be used only
2. Before installation identify a substrate in which the plug will be installed and compare loads which the plug will carry to resistance values given in Product Data Sheet or European 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 masonry substrate made of 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





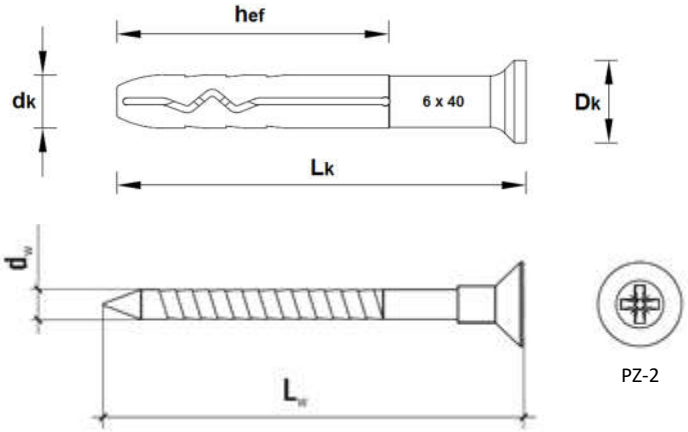
Section 3. TECHNICAL DATA

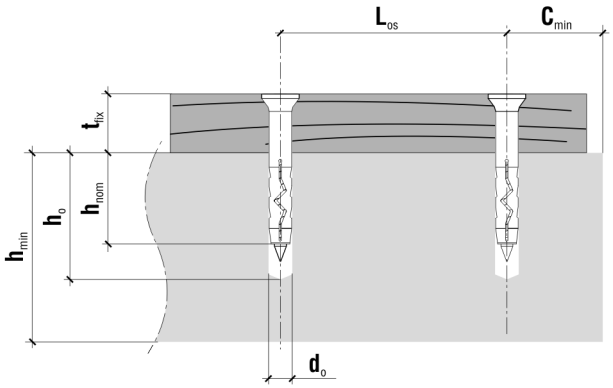
Characteristic resistance [kN] / Design resistance [kN]								
Substrate type	**Concrete C12/15 (use category A)**	**Concrete C16/20 ÷ C50/60 (use category A)**	**Clay bricks MZ (use category B)**	**Calcium silicate bricks KS (use category B)**	**Calcium silicate hollow blocks KSL (use category C)**	**Lightweight concrete blocks LAC (use category D)**	**Autoclaved concrete blocks AAC 2 (use category E)**	**Autoclaved concrete blocks AAC 7 (use category E)**
SMø6	0,40/0,20	0,60/0,30	0,60/0,30	0,60/0,30	0,30/0,15	0,25/0,12	0,10/0,05	0,10/0,05
SMNø6	0,60/0,30	0,90/0,45	0,90/0,45	0,90/0,45	0,90/0,45	0,40/0,20	0,20/0,10	0,30/0,15

Partial safety factor for anchor resistance $\gamma_M = 2,0$

TECHNICAL PARAMETERS			
Parameter	Unit	Value	
		SM ø6	SMN ø6
Plug diameter	d_k [mm]	6	
Hole/drill diameter	d_0 [mm]	6	
Effective anchorage depth	h_{eff} [mm]	28	
Drilled hole depth	h_0 [mm]	40	
Drive type	[-]	PZ-2	
Sleeve material	[-]	PE-HD	PA6
Screw material	[-]	steel with electroplated coatings or non-electrolytically applied zinc flake coatings	
European Technical Assessment	[-]	ETA-19/0156	

INSTALLATION PARAMETERS			
Plug type	Min. substrate thickness	Min. distance from edge	Min. axial distance
	h_{min} [mm]	c_{min} [mm]	L_{os} [mm]
SM/SMN ø6	100	100	100





Anchor index *electroplated coatings*		Anchor sleeve				Expansion nail			t_{fix}
		$h_{ef\ (ABCDE)}$	L_k	d_k	D_k	L_w	d_w	D_s	-
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
SM–06035	SMN–06035	28	35	6	10,5	40	3,9	9	7
SM–06040	SMN–06040		40			45			12
SM–06050	SMN–06050		50			55			22
SM–06060	SMN–06060		60			65			32
SM–06070	SMN–06070		70			75			42
SM–06080	SMN–06080		80			85			52

Anchor index *zinc flake*		Anchor sleeve				Expansion nail			t_{fix}
		$h_{ef\ (ABCDE)}$	L_k	d_k	D_k	L_w	d_w	D_s	-
		[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]
SM–06035-D	SMN–06035-D	28	35	6	10,5	40	3,9	9	7
SM–06040-D	SMN–06040-D		40			45			12
SM–06050-D	SMN–06050-D		50			55			22
SM–06060-D	SMN–06060-D		60			65			32
SM–06070-D	SMN–06070-D		70			75			42
SM–06080-D	SMN–06080-D		80			85			52

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.