

**PRODUCT DATA SHEET – SMNKC/LLC/DW**

**Section 1. PRODUCT DESCRIPTION**

**EXPANSION PLUG WITH CYLINDRICAL COLLAR – SMNKC, STOP BEAD CONNECTION  
– LLC AND PLASTIC SPACER WASHERS – DW**



**Expansion plug with cylindrical collar – SMNKC**

Expansion plug SMNKC is made from polyamide, and screw is made from zinc-coated steel. Intended for (non-structural) fixing of: starting panels in thermal insulation systems ETICS. The fastener can be used on solid substrates such as concrete, clay brick, calcium silicate brick and autoclaved aerated concrete.

**Stop bead connection – LLC**

Fastener LLC is used for connecting insulation board starting panels lengthwise (crosswise fixing on starting panel folding). Fastener dimensions are as follows: 30x20mm.

**Plastic spacer washers – DW**

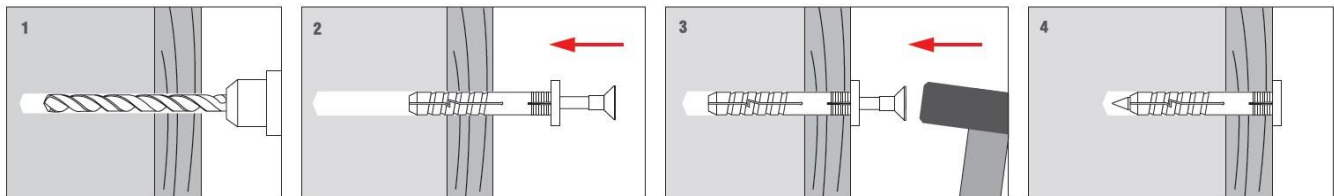
Spacer washers DW are used for levelling substrate unevenness between substrate and starting panel. With spacers even plane of thermal insulation wall is achieved. Spacer washers are colour-coded depending on their thickness. Washer dimensions are as follows: 40x40mm.



Fasteners SMNKC hold Technical Approval: AT-15-9031/2012

**Section 2. METHOD OF INSTALLATION**

1. Before fastening identify the substrate on which fastener SMNKC will be installed
2. Select adequate length of the fastener so that expansion zone is in the construction material of the wall, make sure to include thickness of starting panel, thickness of spacer washer DW and effective depth of anchorage of fastener SMNKC
3. Diameter of drilled holes should match diameter of used fasteners SMNKC
4. Holes in substrates of solid materials should be deeper by min. 10 mm compared to the fastener anchorage depth
5. Clean the holes in solid materials of drillings with a back and forth motion of the drill at a reduced speed
6. Then insert plastic sleeve into drilled hole, and using a hammer drive the screw until it penetrates the sleeve



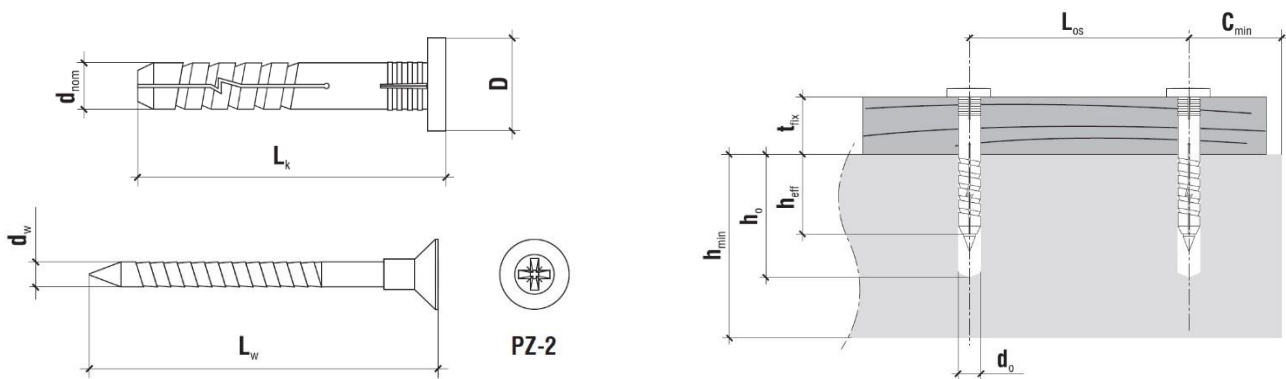
**Section 3. TECHNICAL DATA**

TECHNICAL PARAMETERS – SMNKC		
Parameter	Unit	Value
Plug diameter	$d_k$ [mm]	5/6
Drilled hole diameter	$d_o$ [mm]	5/6
Anchorage depth	$h_{eff}$ [mm]	30
Drilled hole depth	$h_o$ [mm]	40
Socket type	[-]	PZ-2
Sleeve material	[-]	PA - polyamide
Screw material	[-]	Galvanized steel
Approval	[-]	AT-15-9031/2012

STRENGTH PARAMETERS – SMNKC		
Substrate type	Design resistance [kN]	
	SMNKC-5	SMNKC-6
Concrete C20/25	0.64	0.67
Solid clay brick	0.40	0.30
Calcium silica solid brick	0.42	0.42
Autoclaved aerated	0.08	0.11

INSTALLATION PARAMETERS – SMNKC			
Fastener type	Min. substrate	Min. distance from edge	Min. axial distance
	$h_{min}$ [mm]	$c_{min}$ [mm]	$L_{os}$ [mm]
SMNKC-5	60	30	60
SMNKC-6	60	30	60

**PRODUCT DATA SHEET – SMNKC/LLC/DW**



SELECTION TABLE – SMNKC					
Product code	Sleeve diameter and length	Screw diameter and length	Max. usable length	Socket type	Number of pieces in a box
	$d_k \times L_k$ [mm]	$d_w \times L_w$ [mm]	$(t_{fix})$ [mm]	[-]	[pcs]
SMNKC-05035	5x35	3.5x40	5	PZ-2	200
SMNKC-06040	6x40	3.9x45	10	PZ-2	200
SMNKC-06060	6x60	3.9x65	30	PZ-2	100

SELECTION TABLE – LLC		
Product code	Dimension	Number of pieces in a box
	[mm]	[pcs]
LLC	30x20	50

SELECTION TABLE – DW			
Product code	Thickness	Colour	Number of pieces in a box
	[mm]	[-]	[pcs]
DW-02	2	brown	50
DW-03	3	red	50
DW-04	4	green	50
DW-05	5	yellow	50
DW-08	8	blue	50
DW-10	10	black	50
DW-15	15	white	50

**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.