

Section 1. PRODUCT DESCRIPTION

EXPANSION PLUG WITH HEX HEAD SCREW – KXX

Expansion plug KXX comprises sleeve made of polypropylene and hex head steel screw with protective zinc coating. It is designed for fixing of light-duty interior finish systems, metal members and lightweight installations or mounting clamps on solid substrates. The plug is held firmly in place as the expansion lugs on its outside prevent it from turning once it is placed in the hole. On the inner side sleeves have guide lugs on the entire length to ensure guiding of a screw when being installed.

Types of substrates on which expansion plug KXX can be installed:

- Concrete
- Solid clay brick
- Solid sand-lime brick



PP
polipropylen



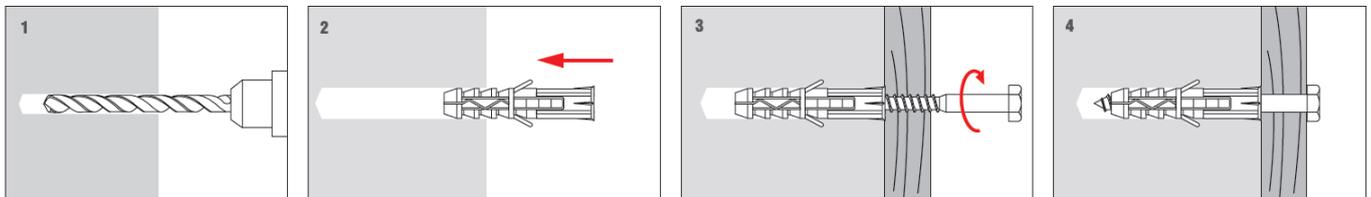
Elementy
klinujące



Expansion plugs hold National Technical Assessment: ITB-KOT-2018/0528 Rev. I

Section 2. METHOD OF INSTALLATION

1. Original expansion 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 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 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 through the element being fixed until it completely penetrates the sleeve (pre-fastening installation)



Section 3. TECHNICAL DATA

Substrate type	RESISTANCE				
	Design pull-out resistance [kN]				
	KKX-10/60	KKX-12/60	KKX-12/80	KKX-14/80	KKX-16/100
Concrete C20/25	0,11	0,17	0,33	0,33	0,67
Solid clay brick	0,16	0,30	0,24	0,48	1,00
Solid sand-lime brick	0,16	0,36	0,48	1,00	1,80

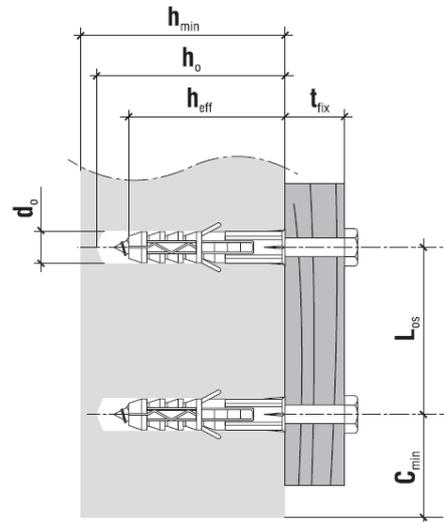
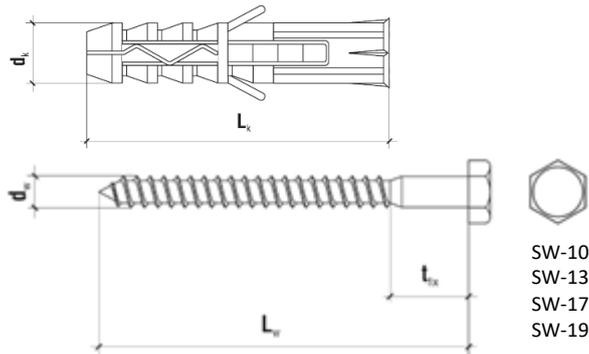
PRODUCT DATA SHEET – KKK

TECHNICAL PARAMETERS		
Parameter	Unit	Value
Plug diameter	d_k [mm]	10/12/14/16
Drilled hole diameter	d_o [mm]	10/12/14/16
Anchorage depth	h_{eff} [mm]	60/80/100*
Drilled hole depth	h_o [mm]	70/90/110*
Drive type	[-]	SW 10/13/17/19*
Sleeve material	[-]	PP – polypropylene
Screw material	[-]	Zinc-plated steel
National Technical Assessment	[-]	KOT-2018/0528

INSTALLATION PARAMETERS			
Plug type	Min. substrate thickness	Min. distance from edge	Min. axial distance
	h_{min} [mm]	c_{min} [mm]	L_{os} [mm]
KKX-10/60, KKK-12/60	90	120	120/180*
KKX-12/80, KKK-14/80	120	160	160/240*
KKX-16/100	150	200	200/300*

*for concrete substrate/other substrates

*for adequate screw size



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]
KKX-10060	10x60	6,0x60	1	SW-10	100
KKX-10070	10x60	6,0x70	10	SW-10	100
KKX-10080	10x60	6,0x80	20	SW-10	100
KKX-10090	10x60	6,0x90	30	SW-10	100
KKX-10100	10x60	6,0x100	40	SW-10	100
KKX-10120	10x60	6,0x120	60	SW-10	100
KKX-10140	10x60	6,0x140	80	SW-10	100
KKX-12060	12x60	8,0x60	1	SW-13	100
KKX-12070	12x60	8,0x70	10	SW-13	100
KKX-12080	12x60	8,0x80	20	SW-13	100
KKX-12090	12x60	8,0x90	30	SW-13	100
KKX-12100	12x80	8,0x100	20	SW-13	50
KKX-12120	12x80	8,0x120	40	SW-13	50
KKX-12140	12x80	8,0x140	60	SW-13	50
KKX-12160	12x80	8,0x160	80	SW-13	50
KKX-12180	12x80	8,0x180	100	SW-13	50
KKX-12200	12x80	8,0x200	120	SW-13	50
KKX-14080	14x80	10x80	1	SW-17	50
KKX-14100	14x80	10x100	20	SW-17	50
KKX-14120	14x80	10x120	40	SW-17	50
KKX-14140	14x80	10x140	60	SW-17	50
KKX-14160	14x80	10x160	80	SW-17	25
KKX-14180	14x80	10x180	100	SW-17	25
KKX-14200	14x80	10x200	120	SW-17	25
KKX-16120	16x100	12x120	20	SW-19	25
KKX-16140	16x100	12x140	40	SW-19	25
KKX-16160	16x100	12x160	60	SW-19	25
KKX-16180	16x100	12x180	80	SW-19	20
KKX-16200	16x100	12x200	100	SW-19	20
KKX-16220	16x100	12x220	120	SW-19	20
KKX-16240	16x100	12x240	140	SW-19	20
KKX-16260	16x100	12x260	160	SW-19	20

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.