



## FIXING MATERIAL

















## Fixing material

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All clamps, cable hangers and tightening belts are in compliance with EU directives.

### Icons - capture

 material	 height (mm)
 temperature resistance, scope of application (°C)	 width (mm)
 package (pcs./kg)	 dimensions - width, height (mm)
 color	 diameter of fixation hole (mm)
 outside diameter (mm)	 maximum wrap diameter (mm)
 inside diameter (mm)	 opening force (daN)
 length (mm)	 dimensions correspond with British Standards

## Axial tension capacity for KOPOS KOLÍN a.s. dowels in particular construction materials

Axial tension capacity (N)					
	concrete 20/25	brick	soft material	gas-silicate	plaster
<b>HM 6</b>	560	420	230	100	
<b>HM 8/1</b>	700	690	500	120	
<b>HM 10</b>	1200	750	580	300	
<b>HM 12</b>	2150	1250	850	390	
<b>HL 6</b>			300	150	120
<b>HL 8</b>			300	120	400
<b>HL 10</b>			300	130	450
<b>HS 6</b>					150



### HM - dowels



		HM 6	HM 8/1	HM 10	HM 12
	mm	6	8	10	12
	mm	30	40	50	60
	pcs./kg	100 / 0,07 14000 / 9,8	100 / 0,15 6000 / 9	100 / 0,26 3000 / 7,8	100 / 0,45 2000 / 9
		PA			
	°C	-30 - + 80			

The dowels are designed to steadily fix the electro-installation and other elements on walls and ceilings made of hard construction materials. Use a screw fitted to full length of the dowels for installation. Detailed information about the depth and the diameter of the drilling for individual types of dowels are stated in the assembly manuals.



### HM PE - dowels



		HM 6 PE	HM 8 PE	HM 10 PE	HM 12 PE
	mm	6	8	10	12
	mm	30	40	50	60
	pcs./kg	200 / 0,14 14000 / 9,8	200 / 0,3 6000 / 9	200 / 0,52 3600 / 9,7	200 / 0,9 2000 / 9
		PE			
	°C	-30 - + 70			

The dowels are designed for universal use (hobby). Use a screw fitted to full length of the dowel for installation. Detailed information about the depth and the diameter of the drilling for individual types of dowels are stated in the assembly manuals.



### HL - dowels



		HL 6	HL 8	HL 10
	mm	6	8	10
	mm	34	48	59
	pcs./kg	100 / 0,06 12000 / 7,2	100 / 0,16 4000 / 6,4	100 / 0,27 2400 / 6,5
		PE		
	°C	-30 - + 70		

The dowels are designed to steadily fix the electro-installation and similar elements on hollow walls and ceilings. Use a screw fitted to full length of the dowel for installation. Detailed information about the depth and the diameter of the drilling for individual types of dowels are stated in the assembly manuals.



### HS - dowels



		<b>HS 6</b>	<b>drill HSV 6</b>
	mm	6	5,5
	mm	22,5	60
	pcs./kg	100 / 0,13 6000 / 8,4	10 / 0,05 250 / 1,3
		PA	
	°C	-30 - + 80	

The dowels are designed to steadily fix the electro-installation and similar elements on plaster walls and ceilings.  
Part of the delivery is one HSV 6 drill per 50 pcs. of HS dowels.



### HN - hammering dowels



		<b>HN 6X25</b>	<b>HN 6X35</b>	<b>HN 6X45</b>	<b>HN 6X55</b>	<b>HN 6X70</b>	<b>HN 8X45</b>
	mm	6	6	6	6	6	8
	mm	25	35	45	55	70	45
	pcs./kg	100 / 0,31 900 / 2,8	100 / 0,41 800 / 3,3	100 / 0,5 1500 / 7,5	100 / 0,58 900 / 5,2	50 / 0,38 1200 / 9,1	100 / 0,82 1200 / 9,8
		PA					
	°C	-30 - + 80					

The dowels are designed to fix non-supporting construction elements and particular items on full brick and concrete masonry.  
Do not screw the screw-nail but rather beat it on when mounting. You can screw in out if necessary. Detailed information about the depth and the diameter of the drilling for individual types of dowels are stated in the assembly manuals.



### Spacing clamps

		<b>6516</b>	<b>6526</b>
	mm	26	39
	mm	22,5	30
	mm	30	40
	conductor max. mm	16	26
	pcs./kg	500 / 2,6	150 / 2,4
		PS	
	°C	-5 - + 60	

Spacing clamps have two parts and are designed to fix the cables up to Ø16 mm and Ø26 mm. To install, screw or stick the bottom part of the clamp on the pad, put in the cable and push the top part on the bottom part.



### Lineal clamps

		<b>6723</b>
	mm	11,5
	mm	15
	mm	70
	conductor max. mm	10 - 26
	pcs./kg	1000 / 2 4000 / 8
		PA
	°C	-30 - + 70

Lineal clamps are designed to fix protected conductors Ø10 mm to Ø26 mm next to each other on type 5820 and 5822 support lath.  
To install, bend the clamp into U-shape and plug it in the support lath. It is secured against displacement using wedge pre-moulded on the clamp.



### Lineal clamps

The clips are designated for the fixing of the cables or other leads with a diameter of 7 to 13 mm. To install, plug it into 5820 or 5822 support lath and turn it by 90°.

		<b>6724</b>
	mm	18
	mm	35
	conductor max. mm	7 - 13
	pcs./kg	200 / 1 1600 / 8,5
		PE
	°C	-30 - + 70



### Double-sided clamps

5213 PC - 5242 PC - to fix ČSN steel pipes on the pad.  
 5220 PC - 5263 PC - to fix EN varnished steel pipes on the pad.  
 5220 PC ZN - 5263 PC ZN - to fix EN ZN steel pipes on the pad.  
 3613 A - 3648 A - to fix flexible metal pipes on the pad.  
 6808 - 6825 - to fix Ø8 mm to Ø25 mm cables on the pad.

Steel strap width      dimension 13 - 21 = 0,8 mm  
                                  dimension 29 - 42 (48) = 1,1 mm

		ČSN						EN					
								varnished					
								5220 PC	5225 PC	5232 PC	5240 PC	5250 PC	5263 PC
								ZN					
		5213 PC	5216 PC	5221 PC	5229 PC	5236 PC	5242 PC	5220 PC ZN	5225 PC ZN	5232 PC ZN	5240 PC ZN	5250 PC ZN	5263 PC ZN
	mm	20,4	22,5	28,3	37	47	54	20	25	32	40	50	63
	mm	46,5 x 10	48,5 x 10	56,5 x 10	71 x 15	87 x 15	96 x 15	45 x 10	50 x 10	57 x 12	70 x 12	85 x 12	96 x 12
	mm	4,3	4,3	4,3	5,3	5,3	5,3	5,3	5,3	5,3	5,3	5,3	5,3
	pcs. kg	1500 7,4	1500 7,8	1000 8,6	500 8,3	250 6,5	200 4,8	100 0,8	100 1	100 1,6	50 1	50 1,4	50 2
		<b>3613 A</b>	<b>3616 A</b>	<b>3623 A</b>	<b>3629 A</b>	<b>3636 A</b>	<b>3648 A</b>	<b>6808</b>	<b>6810</b>	<b>6812</b>	<b>6816</b>	<b>6820</b>	<b>6825</b>
	mm	18,7	21,2	28,3	34,5	42,2	54	8	10	12,5	16	20	25
	mm	44,5 x 10	47 x 10	56,5 x 10	70,5 x 15	80 x 15	96 x 15	32 x 10	32 x 10	39 x 10	48 x 10	56 x 15	61 x 15
	mm	4,3	4,3	4,3	5,3	5,3	5,3	4,3	4,3	4,3	4,3	5,3	5,3
	pcs. kg	1500 7,2	1500 7,8	1000 6,4	500 8,1	400 8,2	200 4,7	3000 8,4	2000 6	2000 7,2	1500 6,9	500 5,6	500 6,4
		galvanized steel sheet											



### Single-sided clamps

The clamps are designed to fix the Ø4 mm to Ø12,5 mm cables on the pad.  
 Steel strap width - 0,8 mm.

		6704	6706	6708	6710	6712
	mm	4	6	8	10	12,5
	mm	14,8 x 10	17,8 x 10	19,8 x 10	22,8 x 10	25,3 x 10
	mm	4,3	4,3	4,3	4,3	5,3
	pcs./kg	5000 / 6	5000 / 8	5000 / 9,5	5000 / 11	5000 / 12
		galvanized steel sheet				



The clamps are equipped with fastening elements for placing next to each other to create continual row thereof as well as with grooves for installation in supporting trunkings of 5820/.. series (see page 77).  
To install, push the pipe between the clamp jaws.

### Clamps

		5313	5316	5321	5329
	mm	20	21	27	36
	mm	30	31	40	48
	mm	4,2	4,4	4,4	4,4
	pcs./kg	1200 / 10,2	1200 / 11,3	800 / 9,2	600 / 9,4
		PVC			
	°C	-5 - +60			



The hangers are designed to fasten the  $\varnothing 8$  mm to  $\varnothing 18$  mm cables on support rope.  
Suitable only for indoor installation.

### Cable hanger

		6401
	mm	157
	pcs./kg	1000 / 2,8
		PA
	°C	-40 - +85



Tightening belts are intended for ordinary bunching and fastening cables, conductors and pipes.  
For fastening to a support base we will use clamps of tightening bands.  
Fireproof in compliance with U.L. 94 - V2.  
It is not insulation resistant in long-term.

### Tightening belts

	mm	mm	daN	pcs./kg		°C	
<b>SP 100X2.5</b>	100 x 2,5	25	8	100 / 0,1	PA	-40 - + 85	natural
<b>SP 140X3.5</b>	150 x 3,6	39	18	100 / 0,16			
<b>SP 140X4.5</b>	140 x 4,5	36	28	100 / 0,18			
<b>SP 160X2.5</b>	165 x 2,5	44	8	100 / 0,2			
<b>SP 160X4.5</b>	160 x 4,8	42	22	100 / 0,23			
<b>SP 180X4.5</b>	180 x 4,5	45	28	100 / 0,26			
<b>SP 200X4.5</b>	190 x 4,8	52	22	100 / 0,3			
<b>SP 250X4.5</b>	250 x 4,8	74	22	100 / 0,36			
<b>SP 280X4.5</b>	310 x 4,8	89	22	100 / 0,4			
<b>SP 360X4.5</b>	368 x 4,8	102	22	100 / 0,46			
<b>SP 380X4.5</b>	380 x 4,5	110	28	100 / 0,5			
<b>SP 430X4.5</b>	450 x 4,8	133	22	100 / 0,56			
<b>SP 360X7.5</b>	380 x 7,6	101	55	100 / 0,6			
<b>SPM 100X2.5</b>	100 x 2,5	25	8	100 / 0,5			



### Tightening belt clamps

Fastening belt clamps are designed to fix the belt on the surface.  
Fireproof in compliance with U.L. 94 - V2.  
It is not insulation resistant in long-term.

SPP 19X19 - self-adhesive

		SPP 9	SPP 19X19	SPPN 19X19
	mm	9	4	4
	pcs./kg	100 / 0,3	100 / 0,3	100 / 0,3
		natural	black (FA) natural (HB)	black
		PA		
	°C	-40 - + 85		

