

PU Resin

Polyurethane (PU) resin system is a twin-pack pre-filled combination of PU resin and hardner, presented in a “mix in the bag” easy to use, no-waste, ensured mixing ratio packing. Different packs of 0.1 up to 3kg resin and hardner are available, both for “resin joints”, and for other applications such as encapsulation of electronic and light electrical appliances.



Technical specifications

Specifications of two-part polyurethane resin packages			
Color of mixed system		Cream and milky color (it is also possible to provide resin in black color)	
Density of resin at 25°C		1.43gr/cm ³	
Density of Hardner at 25°C		1.23gr/cm ³	
Viscosity of resin at 25°C		4800-6000 mpa.s	
Viscosity of Hardner at 25°C		160-240 mpa.s	
POT life at 25°C		10-15 minutes 0.5 liter	
Gel time at 25°C ✱		25-30 minutes 0.5 liter	
Gel time is very much dependent upon ambient temperature and mixing time			
Full cure at 25°C		24 hours	
Peak Exothermic		60-65 °C (150g mass)	
Electrical characteristics of polyurethane resin according to DIN VDE 0291 ,PART2			
Test specifications		Acceptance criteria	Result
test voltage	(1minute at 23 °C)	no breakdown at test voltage 20Kv	38 Kv
	(1minute at 80 °C)		35 Kv
Dielectric dissipation factor	(at 23 °C and 50 Hz)	≤0.04	0.03
	(at 50 °C and 50 Hz)	≤0.10	0.06
	(at 80 °C and 50 Hz)	≤0.25	0.15
Relative permittivity	(at 23 °C and 50 Hz)	≤6	4.3
	(at 50 °C and 50 Hz)	≤7	5.5
	(at 80 °C and 50 Hz)	≤8	7.2

Selection Table

Code	Weight (gr)
RP0	107 g
RP1	250 g
RP2	450 g
RP3	800 g
RP4	1300 g
RP5	2900 g

Code	Weight (gr)
RM0	250 g
RM1	450 g
RM2	800 g
RM3	1000 g
RM4	1350 g
RM5	1550 g

In order to avoid mechanical damage, and/or penetration of liquids (water/moisture, oil, and/or other chemicals, etc.) into low voltage cable joints, application of resin joint is recommended.

A twin-pack pre-filled combination of “mix in the bag” PU Resin and hardner ensures easy to use, no waste, ensured mixing ratio preparation and installation of resin joints.

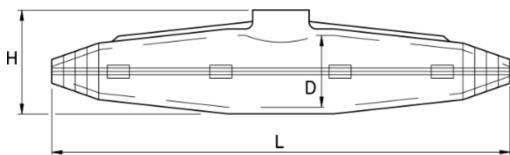
Resin joints are available in straight (M) and branch (Y) models, suitable for low voltage application up to 1kV, for jointing and branching of single and multi-core polymeric cables from 1.5 up to 240 mm².



Performance of resin joints may be tested according To BS 7888/HD 623 Standard, and these joints are normally supplied without any connectors, except when specifically ordered by the buyer.

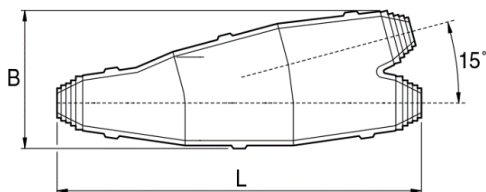
Selection Table		Resin Joint ① / ② / ③			
① Code	② Armour		③ Lead Sheath		
As Required	-	Non-Armoured	-	No Lead Sheath	
	Z	Armoured	L	Lead Sheath	
Example: SHM12/Z/L		LV Resin Joints size SHM12 for armored Lead Sheath cable			

Resin Joints



M Series Resin Joint Dimension Table

Code	L (mm)	D (mm)	H (mm)	Cable Diameter Min (mm)	Cable Diameter Max (mm)
SHM 10	160	29	35	10	21
SHM 11	210	36	41	10	30
SHM 12	225	48	55	16	34
SHM 13	360	55	75	21	43
SHM 14	400	70	95	26	48
SHM 15	530	100	120	35	63
SHM 16	700	125	160	47	74



Y Series Resin Joint Dimension Table

Code	B (mm)	L (mm)	Minimum diameter of main cable (mm)	Minimum diameter of main cable (mm)	Minimum diameter of branch cable (mm)	Minimum diameter of branch cable (mm)
SHM Y1	55	190	5	18	5	18
SHM Y2	90	220	10	25	10	25
SHM Y3	100	270	17	38	17	38
SHM Y4	120	345	21	38	21	38
SHM Y5	140	400	30	51	20	39
SHM Y6	180	500	50	77	21	39
SHM Y7	215	650	55	115	21	41





Selection Table	Resin Joint ① / ② / ③
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① Code	② Armour		③ Lead Sheath	
As Required	-	Non-Armoured	-	No Lead Sheath
	Z	Armoured	L	Lead Sheath





Example:	SHM12/Z/L	LV Resin Joints size SHM12 for armored Lead Sheath cable
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Guide for choosing the size of a resin joint

M Series Resin Joint (non armoured cable)

Code	1x 	3x 	4x 	5x 
SHM 10	10-70	1.5-4	1.5-4	2.5-4
SHM 11	50-185	4-10	4-10	4-6
SHM 12	185-400	16-25	16-25	10-16
SHM 13	300-500	35-50	35-50	25-35
SHM 14	400-800	70-95	70-95	50-70
SHM 15	630-1200	120-150	120-150	95-120
SHM 16	1000-1600	185-240	185-240	150-185



M Series Resin Joint (armoured cable)

Code	1x 	3x 	4x 	5x 
SHM 10	10-50	1.5-4	1.5-4	1.5-2.5
SHM 11	70-150	4-10	4-6	2.5-4
SHM 12	150-300	16-25	6-16	6-10
SHM 13	300-500	35-50	16-35	10-25
SHM 14	400-800	70-95	50-70	16-50
SHM 15	630-1200	120-150	95-150	70-95
SHM 16	1000-1600	185-240	185-240	120-150

M Series Resin Joint (control cable)

Cable Size & Code		7 Core	10 Core	12 Core	19 Core	24 Core	30 Core	37 Core	52 Core	61 Core
non armoured	1.5 mm	SHM11	SHM12	SHM13	SHM13	SHM14	SHM15	SHM15	SHM15	SHM16
	2.5 mm	SHM12	SHM13	SHM13	SHM14	SHM14	SHM15	SHM15	SHM15	SHM16
armoured	1.5 mm	SHM11	SHM13	SHM13	SHM13	SHM14	SHM15	SHM15	SHM15	SHM16
	2.5 mm	SHM12	SHM13	SHM13	SHM14	SHM14	SHM15	SHM15	SHM15	SHM16

Y Series Resin Joint (armoured / non armoured cable)

Code	1x 	4x 		
	Main cable	Branch cable	Main cable	Branch cable
SHM Y1	2.5-35	2.5-35	1.5-4	1.5-4
SHM Y2	4-50	4-50	4-16	4-16
SHM Y3	70-150	70-150	10-35	10-35
SHM Y4	185-400	185-400	25-70	25-70
SHM Y5	500-630	185-400	50-150	50-70
SHM Y6	-	-	120-300	50-70
SHM Y7	-	-	240-400	50-70