

3M

Scotchcast™ Resin Splicing Kits



3M resin insulated splicing kits are designed for indoor, outdoor (weather exposed), direct buried or submersed applications. In conjunction with other technologies, these kits utilize epoxy, polyurethane and re-enterable compounds to meet application requirements. 3M brand Scotchcast™ Resins are 100% solids, thermosetting, electrical grade, hydrolytically stable insulating resins. Classified chemically as either epoxies or polyurethanes, the product line includes two-part

liquids and two-part polyurethane liquids, which are also available in flame-retardant halogenated and flame-retardant non-halogenated systems, re-enterable and non-re-enterable systems, hard and soft systems and a lot more. Their unique electrical and physical properties make them ideal for insulating and protecting electrical/electronic parts and assemblies. Their physical features also make them suitable for non-electrical, general use applications, for example as adhesives or sealants.



Scotchcast™ Electrical Resins



Features:	Benefits:
Scotchcast™ 4SA Insulating Resin	
<ul style="list-style-type: none"> A two-part amber, transparent epoxy resin with excellent electrical, chemical and mechanical properties. It is packed only in Uni-pack bags for small splices or pressure splices. 	<ul style="list-style-type: none"> Stable up to 110°C Usable for indoor and outdoor applications Unaffected by solvents, ozone and moisture Thermo setting - does not melt or run once cured Meets SABS 526, SABS 150 standards
Scotchcast™ 44 Insulating Resin	
<ul style="list-style-type: none"> An opaque, coffee-coloured two-part polyurethane resin which features excellent electrical, chemical and mechanical properties. It is packed in a variety of Uni-pack bag sizes, or 4,2kg mix-packs. 	<ul style="list-style-type: none"> Cost-effective, high performance Usable for indoor and outdoor applications Hydrolytically stable Low exothermic temperatures Meets SABS 526, SABS 150 standards
Scotchcast™ 48FR Re-enterable Resin	
<ul style="list-style-type: none"> A halogenated, flame retardant, grey/brown polyurethane resin developed locally to offer balanced flexibility, mechanical strength and easy re-entry characteristics. Packed in either a 0,5 litre, 2 or 4 litre mix packs. 	<ul style="list-style-type: none"> Flame retardant, FV - II (IEC707) Very flexible - does not crack Ageing causes no degradation Offers hydrolytically-stable watertight seals Excellent adhesion Meets BS 2782, IEC 93, AS 1147 standards
Scotchcast™ 52FR Re-enterable Resin	
<ul style="list-style-type: none"> A transparent epoxy resin developed by 3M South Africa specifically to satisfy the requirements of the SA Mining Industry. It offers high impact strength and allows the inspection of the workmanship, within the joint, after it is completed. 	<ul style="list-style-type: none"> Flame-retardant (IEC707) Excellent mechanical protection Low viscosity Easy to pour in cold weather applications Meets BS 6910, VDE 0291 standards

SABS performance test reports available on all of the above on request.

Selection Chart

Product	Size	Application
Scotchcast™ 4SA Insulating Resin		
Scotchcast™ 4SA	A/90 cm ²	<ul style="list-style-type: none"> 82-A1 splicing kits. Unsuitable for larger pouring splicing kits due to the high exothermic temperatures. Range of resin pressure splices.
Scotchcast™ 4SA	B/209 cm ²	
Scotchcast™ 4SA	E/292 cm ²	
Scotchcast™ 4SA	C/418 cm ²	
Scotchcast™ 4SA	D/627 cm ²	
Scotchcast™ 44 Insulating Resin		
Scotchcast™ 44	A/90 ml	<ul style="list-style-type: none"> 82-A2 82-A3 91-A Series splicing kits. Medium to high voltage splices.
Scotchcast™ 44	B/161 ml	
Scotchcast™ 44	C/418 ml	
Scotchcast™ 44	D/680 ml	
Scotchcast™ 44	E/292 ml	
Scotchcast™ 44	Mixpack/4.2 ml	
Scotchcast™ 48FR Re-enterable Resin		
Scotchcast™ 48FR	0,5 litre	<ul style="list-style-type: none"> Where ever re-entry is necessary to connections not effected by halogen corrosion. Designed for brass couplers on colliery trailing cables.
Scotchcast™ 48FR	2 litre	
Scotchcast™ 48FR	4 litre	
Scotchcast™ No. 52FR & 54FR Insulating Resin		
Scotchcast™ 52FR	B/145 cm ²	<ul style="list-style-type: none"> Designed for L.T. resin splices, where flame-retardancy is required. Medium voltage kits, where flame-retardancy is required.
Scotchcast™ 52FR	C/379 cm ²	
Scotchcast™ 54FR	Mixpack/3,81	



Scotchcast™ Low Voltage Resin Splicing Kits for up to 1,1kV



Features:	Benefits:
Scotchcast™ 82 Splicing Kits <ul style="list-style-type: none"> Utilises a slim line mould Meets VDE 0278, BS 6910 SABS performance test reports available on request 	<ul style="list-style-type: none"> 82 Series is ideal for bore hole applications where space is limited 91 Series is ideal for armoured cables Tough and moisture-proof Long lasting physical and electrical protection All kits include tape for insulating ferrules and sealing mould ends Tried and tested local experience for over 30 years 3M worldwide quality guarantee
Scotchcast™ 91 Splicing Kits <ul style="list-style-type: none"> Utilises a “bulge” type mould Features Scotchcast™ 44 general purpose polyurethane resin Meets VDE 0278, BS 6910 SABS performance test reports available on request 	
Scotchcast™ 91-A-W Splicing Kits <ul style="list-style-type: none"> Utilises a flame retardant mould Features Scotchcast™ 52FR flame retardant resin (to Chamber of Mines Specifications) 	
Scotchcast™ 91-A-K Splicing Kits <ul style="list-style-type: none"> Features Scotchcast™ 52FR flame retardant resin 	

Selection Charts

In-line Splices

Product	Min. Cable O.D.	Max. Cable O.D.	Cable Conductor Size
Scotchcast™ 82 Splicing Kits			
Scotchcast™ 82-A1	7 mm	16 mm	2,5 - 4 mm ²
Scotchcast™ 82-A2	14 mm	28 mm	6 - 16 mm ²
Scotchcast™ 82-A3	17 mm	40 mm	25 - 35 mm ²
Scotchcast™ 91 Splicing Kits			
Scotchcast™ 91-A1	8 mm	28 mm	4 - 10 mm ²
Scotchcast™ 91-A2	14 mm	32 mm	16 - 25 mm ²
Scotchcast™ 91-A3	23 mm	39 mm	35 - 50 mm ²
Scotchcast™ 91-A4	28 mm	51 mm	70 mm ²
Scotchcast™ 91-A4.5	30 mm	55 mm	95 mm ²
Scotchcast™ 91-A5	45 mm	70 mm	120 - 150 mm ²
Scotchcast™ 91-A6	48 mm	86 mm	185 - 240 mm ²

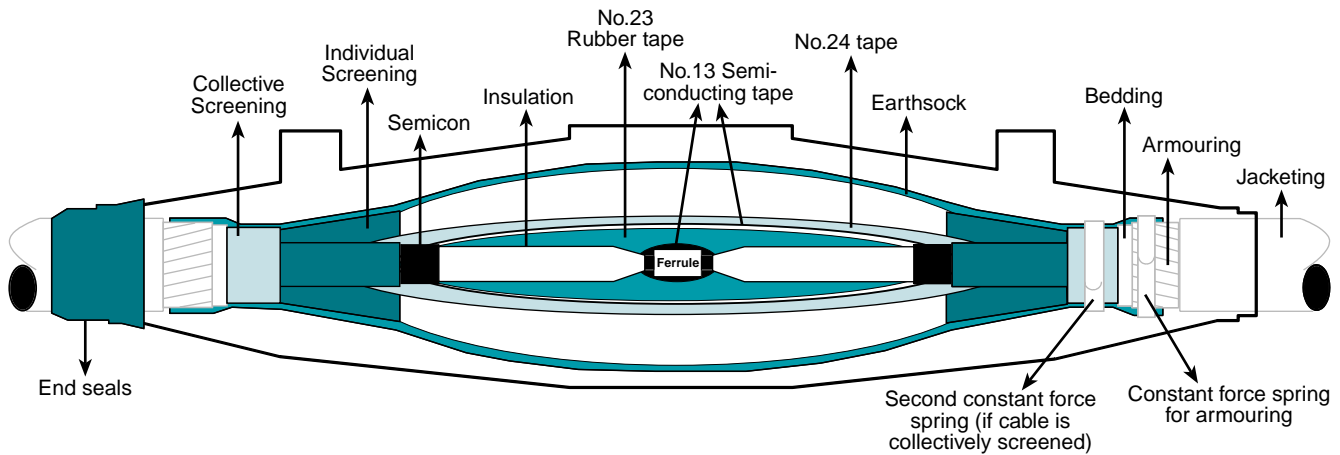
T-joint Splices

Product	Main Cable Conductor Size	Branch Cable Conductor Size
Scotchcast™ 91 T-joint Splicing Kits		
Scotchcast™ 91-T2	4 - 35 mm ²	4 - 16 mm ²
Scotchcast™ 91-T3	35 - 95 mm ²	16 - 50 mm ²



Scotchcast™

Medium Voltage Resin Splicing Kits for 6,6kV to 11kV



Features:	Benefits:
Scotchcast™ 92-A5 Splicing Kit <ul style="list-style-type: none"> In-line splicing of 6,6kV rated PILC cables Utilises the poured resin method Cable size: 16 - 50 mm² 	<ul style="list-style-type: none"> Designed for outdoor or direct buried applications Impervious to all forms of ambient contamination normally encountered
Scotchcast™ 92-A5-X Splicing Kit <ul style="list-style-type: none"> In-line splicing of 6,6kV rated XLPE cables Utilises the poured resin method Cable size: 16 - 50 mm² 	<ul style="list-style-type: none"> Excellent electrical and mechanical properties Designed to withstand permanent exposure to weather or soil chemicals when buried
Scotchcast™ 92-A11-6 Splicing Kits <ul style="list-style-type: none"> Introduced specifically for in-line splicing of 11kV rated PILC cables Utilises the tape and resin poured method Also available with flame-retardant epoxy resin, Scotchcast™ 52FR 92-A11-6/W Cable size: 16 - 150 mm² 	<ul style="list-style-type: none"> Designed for outdoor or direct buried applications Impervious to all forms of ambient contamination normally encountered
Scotchcast™ 92-A11-X6 Splicing Kits <ul style="list-style-type: none"> Specially designed for in-line splicing of 11kV rated XLPE cables Utilises the resin poured method. Also available with Scotchcast™ 52FR epoxy resin 92-A11-X6/W Cable size: 16 - 150 mm² 	<ul style="list-style-type: none"> Excellent electrical and mechanical properties Designed to withstand permanent exposure to weather or soil chemicals when buried
Scotchcast™ TRS-1 & TRS-2 Splicing Kits <ul style="list-style-type: none"> A Transition Splicing System specifically designed to successfully splice 11kV rated XLPE cables to 11kV rated PILC cables Utilises the resin pressure method Cable size: TRS-1: 16 - 150 mm² TRS-2: 185 - 300 mm² 	<ul style="list-style-type: none"> Designed for long-term reliability

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