

3M Science.
Applied to Life.™

3M™ Scotchcast™ Resin

Resin Solutions for Low-Voltage Splicing, Insulating and Sealing.



We have your solution for low-voltage splicing, insulation and sealing.



3M™ Scotchcast™ Epoxy Resin 4 GS

The most advanced resin from 3M, free of CMR and SVHC components



3M™ Scotchcast™ Polyurethane Resin 40

High-quality solution in a ready-to-mix package with an integrated spout and nozzle



3M™ Scotchcast™ Re-Enterable Resin 2123

Formulated for most electrical applications requiring a soft, re-enterable resin

To keep things running, cable connections need to be reliable. With 3M Resin Solutions, splicing becomes an easy process, with clean application, and a reliable result.

Our solutions provide:

- Electrical insulation, protection against liquids, chemicals, vibrations, and impact
- Cleaner handling through closed mix and pour with integrated spout and 3M Easy Dispenser 250
- Compliance with regulations concerning the safety of chemical compounds

3M Products can help you get the job done on schedule.

A new standard in low-voltage connection.

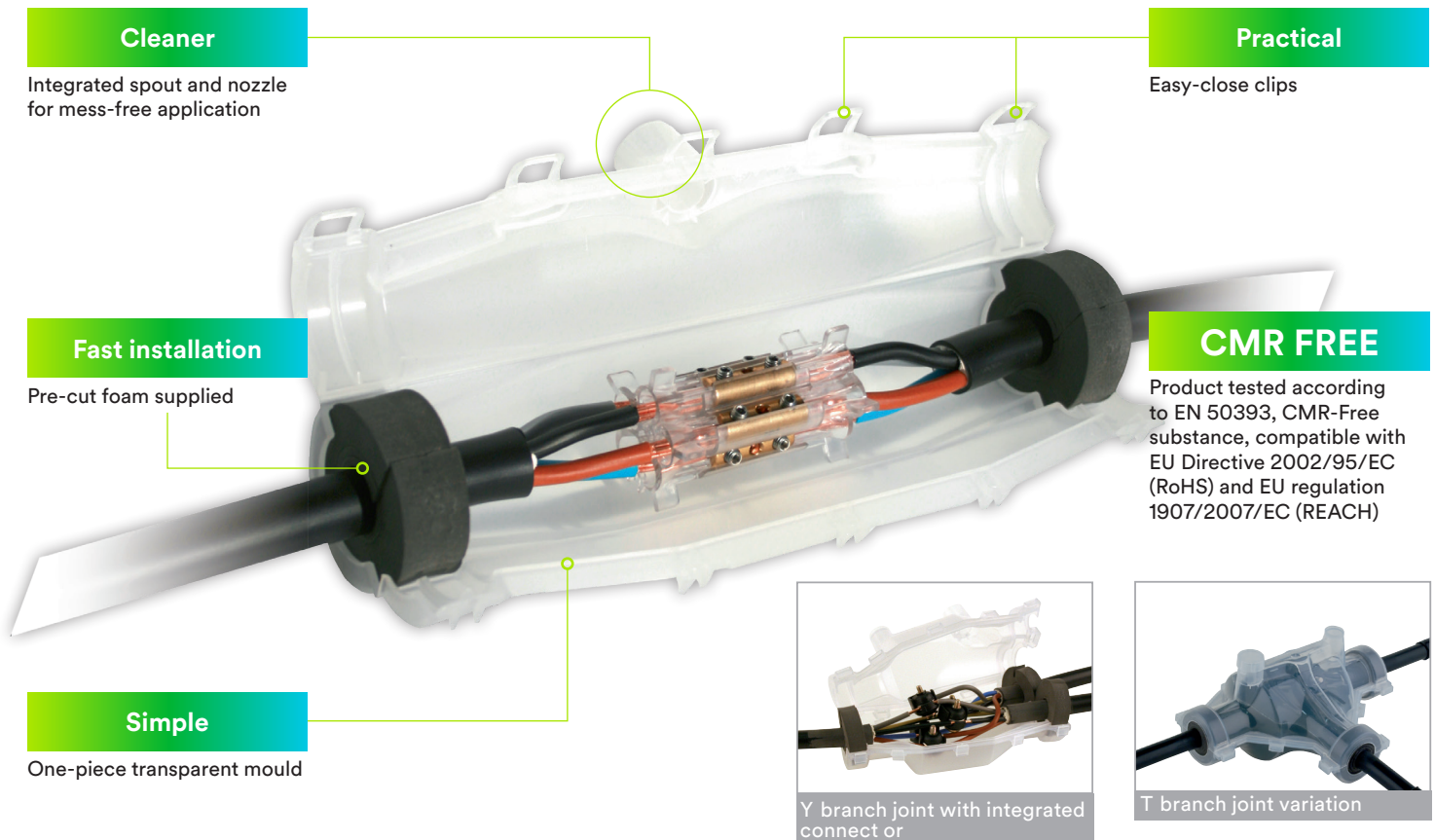
3M can help you get it done safely.

Discover the safer epoxy resin from 3M. Compared to other products in our portfolio, the 3M™ Scotchcast™ Epoxy Resin 4 GS is free of carcinogenic, mutagenic, reprotoxic (CMR) chemicals and substances of very high concern (SVHC). Fast, reliable and mess-free application is provided thanks to the closed mix and pour system with an integrated spout and nozzle. Suitable for low-voltage electrical splice joints up to 0.6/1.0 (1.2) kV.

- No Substances of Very High Concern (SVHC)
- No isocyanate, silicone or halogen
- Limited skin contact thanks to the closed mix and pour system and integrated spout
- 20% of the formula is made of bio-renewable organic substances such as cashew nutshell liquid

Convenient, easy and reliable application:

- Transparent mixing bag with colour indication system allows the resin to be applied at the ideal moment
- Prolonged usage time of the mixed resin
- Innovative one part mould for cleaner and more accurate delivery to the enclosure
- Integrated spout and nozzle for mess-free application
- External heat reduced
- Enhanced humidity and water resistance
- The connection is ready for immediate power-up





Practical: One-piece transparent mould

Reliable: Visual control of resin delivery

Cleaner: Integrated pouring spout and contact-free design

Faster: No cutting or taping, mess-free application

Safer: Free of CMR and SVHC components

Adaptable: Different pack sizes, including mould body and connector



The transparent two-component bag with an integrated spout reduces contact with resin during pouring.



Two-part plastic pouch bag with a removable barrier in the correct stoichiometric proportion.



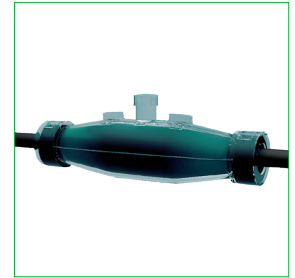
2 minutes: Resin turns green indicating perfect mix.



Visible colour change. Mixture is ready to pour.



Place the spout on the mould body, quarter turn to release the resin and fill the kit.



30 minutes*: as curing takes place the resin colour changes to darker green.

Mix colour indicator



*Average time for a 92-NBA 3 GS kit at 23 ° C

Colour indicator of mix preparation quality and validation of the resin polymerization.



Scotchcast™ 4 GS

Epoxy Resin

- + CMR-free, Isocyanate-free
- + Lower exothermic heat
- + Longer pot life, workability
- + Colour Indicator



Old Scotchcast™ 4

Epoxy Resin

- not CMR-free
- Very high exothermic heat (>175°C, only suitable for joint sizes up to NBA-4)

We have your solution for everyday cable connection tasks.

3M™ Scotchcast™ Polyurethane Resin 40 comes with a one-part mould that allows for a cleaner and more reliable application. Our ready-to-mix package contains two ideal proportions of resin, ready to combine. Thanks to the integrated spout and nozzle, the mix can be applied practically mess-free.

Discover the advantages of 3M™ Scotchcast™ Polyurethane Resin 40 and 92-NBA kits:

- Closed mix and pour system ensures minimal spillage, precise application, and reduced risk of contact with the resin
- One-piece mould for fast, reliable, and mess-free installation
- Low exothermic heat formula that prevents the cables from being damaged
- Applicable with larger cross-section cables
- Provides strong mechanical protection
- Available in a wide variety of sizes and different types of moulds for various applications

3M™ Scotchcast™ Polyurethane Resin 40

3M™ Scotchcast™ Polyurethane Resin 40 suitable for electrical insulation and protection against environmental influences for low-voltage electrical splice joints up to 0.6/1.0 (1.2) kV.



3M™ Scotchcast™ Electrical Insulating Resin 40 in Bags



3M™ Scotchcast™ Cable Joint Kits feature with Scotchcast™ Electrical Insulating Resin 40

We have your solution for easy electrical insulation and moisture sealing.

When you need to make a quick repair or provide low-voltage cable insulation, look no further than 3M™ Scotchcast™ Re-enterable Electrical Insulating Resin 2123. It's a two-part polybutadiene encapsulant resin, designed for re-enterable splice joint insulation.

Discover the advantages of 3M™ Scotchcast™ Re-enterable Electrical Insulating Resin 2123

Choose 3M™ Scotchcast™ Re-enterable Electrical Insulating Resin 2123 for its advantages, such as:

- Splice joint insulation up to 0.6/1.0 (1.2) kV.
- Universal solution applicable in virtually every location that requires soft, re-enterable resin
- Good results even at low temperatures
- Easy flow that fills every enclosure and minimizes air voids
- Great protection against water (IPx8)
- Low exothermic reaction temperature that minimizes the damage to the cables
- Continuous operating temperature up to 90°



CAUTION: this resin is not recommended for industrial applications that require a permanent, non re-enterable connection (for such applications, use 3M™ Scotchcast™ Epoxy Resin 4 GS or 3M™ Scotchcast™ Polyurethane Resin 40).

Use 3M™ Scotchcast™ 2123 with Scotchcast™ Easy Dispenser 250.

It ensures a mixing ratio of 1:1 and allows for cleaner mixing and application. Reduce waste and spillage for a consistent result, even when used in small quantities.

Where to use 3M™ Scotchcast™ 2123:

- Irrigation systems
- Intercom systems
- Gate automation

Choose 3M™ Scotchcast™ 2123 over silicone gel for:

- Re-insulation, thanks to the easily peelable resin that has less risk of contamination and loss of sealing
- Good performance and stability when exposed to sunlight and high temperatures
- Tight sealing that allows cables to be moved without the risk of penetration by dust, dirt or sand
- Mechanical protection that doesn't require casing
- Mechanical rigidity that reduces the risk of electrical contact
- Easier and cleaner installation
- Smaller repairs and interventions that require a minimal amount of resin

Scotchcast™ Resin Products Application Guide.





		Residential	Industrial	Heavy Industry	Industrial ATEX	Industrial Mining
		External application, outdoor lighting, pool installation, underground	Application for Low-voltage cable splices	Application for Low-voltage cables splices in petrochemical	Application in area classified ATEX with risk of explosion	Application for Low-voltage flexible cables
Silicone Gel 3M™ Direct Bury Closure DBC*	Outdoor	A				
	Connection Box	A				
	Underground	A				
Re-enterable Resin 3M™ Scotchcast™ 2123 (see page 6)	Outdoor	R	A			
	Connection Box	R	A			
	Underground	A	A			
Solid Cast Splicing and Resin 3M™ Scotchcast™ 4 GS 3M™ Scotchcast™ 40 (see pages 3-5)	Outdoor	R	R			
	Connection Box	R	R			
	Underground	R	R			
Flame Retardant Splicing and Resin 3M™ Scotchcast™ 1402FR*	Outdoor		A	R	R	
	Connection Box		A	R	R	
	Underground		A	R	R	
Flexible Flame Retardant Resin 3M™ Scotchcast™ 2131* (Resistant to salt water)	Outdoor		A	A		R
	Connection Box		A	A		A
	Underground		A	A		R

A – Acceptable R – Recommended

*Specialist products not featured in this brochure, please see 3M.com or contact you 3M sales representative for more details.



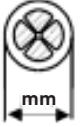
Choose 3M™ Scotchcast™ Resins for Low-voltage Splicing, Insulation, and Sealing.

Application Range [mm²] for different kit sizes using either Resin 4 GS or Resin 40




		In-Line Splice											
3M™ Scotchcast™ Epoxy Resin 4 GS	3M™ Scotchcast™ Polyurethane Resin 40	 Cu				 Al				 Cu	 mm		
		Application Range in mm ²		Application Range in mm ²		Application Range in mm ²		Application Range in mm ²		Application Range in mm ²		Application Range in O.D.	
Kit Reference	Kit Reference	4 x		5 x		4 x		5 x		4 x or 5 x		mm	
92-NBA 0 GS	92-NBA 0	1,5	4	1,5	2,5	-	-	-	-	-	-	4	16
92-NBA 1 GS	92-NBA 1	1,5	10	1,5	6	-	-	-	-	-	-	10	22
92-NBA 2 GS	92-NBA 2	6	16	2,5	10	-	-	-	-	-	-	12	25
92-NBA 3 GS	92-NBA 3	16	25	6	16	-	-	-	-	-	-	13	32
92-NBA 4 GS	92-NBA 4	25	50	16	35	16	35	16	25	-	-	18	36
92-NBA 5 GS	92-NBA 5	50	95	25	50	35	70	25	50	-	-	19	45
92-NBA 6 GS	92-NBA 6	70	120	50	95	70	120	50	95	-	-	27	54
92-NBA 7 GS	92-NBA 7	120	240	95	150	95	240	95	150	-	-	29	64
92-NBA 1C GS (w/Conn)	92-NBA 1C (w/Conn)	-	-	-	-	-	-	-	-	1,5	6	10	22
92-NBA 3C GS (w/Conn)	92-NBA 3C (w/Conn)	-	-	-	-	-	-	-	-	1,5	16	10	32

Application Range [mm²] for different kit sizes using either Resin 4 GS or Resin 40


T-Branch Splice

3M™ Scotchcast™ Epoxy Resin 4 GS	3M™ Scotchcast™ Polyurethane Resin 40										
		Application Range in mm ²		Application Range in mm ²		Application Range in O.D.					
Kit Reference	Kit Reference	Application Range in mm ²		Application Range in mm ²		Application Range in O.D.					
92-NBC GS series	92-NBC series	4 × Main Cable	4 × Branch Cable	5 × Main Cable	5 × Branch Cable	mm					
92-NBC 2 GS	92-NBC 2	4	35	4	25	2,5	25	2,5	25	16	33
92-NBC 2C GS (w/Conn)	92-NBC 2C (w/Conn)	4	16	4	16	2,5	16	2,5	16	16	33

Y-Branch Splice

3M™ Scotchcast™ Epoxy Resin 4 GS	3M™ Scotchcast™ Polyurethane Resin 40										
		Application Range in mm ²		Application Range in mm ²		Application Range in O.D.					
Kit Reference	Kit Reference	Application Range in mm ²		Application Range in mm ²		Application Range in O.D.					
92-NBB x GS series	92-NBB x series	4 × Main Cable	4 × Branch Cable	5 × Main Cable	5 × Branch Cable	mm					
92-NBB 0 GS	92-NBB 0	1,5	4	1,5	4	-	-	-	-	9	18
92-NBB 1 GS	92-NBB 1	2,5	16	2,5	16	1,5	10	1,5	10	11	23
92-NBB 2 GS	92-NBB 2	4	35	4	25	2,5	25	2,5	25	16	33
92-NBB 1C GS (w/Conn)	92-NBB 1C (w/Conn)	2,5	10	2,5	10	1,5	10	1,5	10	11	23
92-NBB 2C GS (w/Conn)	92-NBB 2C (w/Conn)	4	16	4	16	2,5	16	2,5	16	16	33

Resin Bags

3M™ Scotchcast™ Epoxy Resin 4 GS	3M™ Scotchcast™ Polyurethane Resin 40	3M™ Scotchcast™ 2123 Re-Enterable Electrical Insulating Resins		
			ml	Nozzle
Kit Reference			ml	Nozzle
RESIN 4 GS SIZE A	RESIN 40 BAG SIZE A	-	90	Y
RESIN 4 GS SIZE B	RESIN 40 BAG SIZE B	-	200	Y
RESIN 4 GS SIZE C	RESIN 40 BAG SIZE C	-	370	Y
-	-	RESIN 2123 SIZE A	2 × 90	N
-	-	RESIN 2123 SIZE C	385	N
-	-	RESIN 2123 SIZE D	659	N
-	-	RESIN 2123 SIZE E	292	N

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