

Scotchcast™ Twist-n-Mix Resin Delivery System



The cleanest and easiest way to apply and handle resin

- Complete Control During The Handling Process
- In-line Mixing
- Minimum Wastage
- No Spillage
- Mixes Small Quantities
- Available in Colours

“Twist-n-Mix”

Ideally suited for resin potting applications in OEM Manufacturing – “Twist-n-Mix” is simple in concept and offers many added benefits to the user.

This new and completely practical resin delivery method allows for precise, closed, mixing and resin pouring.

The system incorporates interlocking nozzles to ensure accurate resin mixing and delivery.

Resin System Consists:

Resin Cartridge	– XR 9101 – 10 cartridge pack to a case
	– XR 9102 (Black only)
	– XR 9103 (thixotropic black only)
Applicators	– Hand Gun
	– Pneumatic Gun
Nozzles	– Packed in 10s

Extra Carrying/Packaging Case for total system

ScotchcastTM XR9101 (Clear) Electrical Resin

Two-part, Room Cure, Semi-flexible, Epoxy Liquid Resin

- Low mixed viscosity
- Amber clear
- Thermal and mechanical shock resistant
- Good adhesion
- A thixotropic black version (XR9102) and a highly thixotropic black version (XR9103) are available
- Can be supplied in colours
- Available in 50g cartridges (XR9103 also available in 200g version)

ScotchcastTM resin XR9101 is a general purpose potting and encapsulating material suitable for coils, transformers and other electrical or electronic components. It is supplied in ready to use, easily dispensed, side by side cartridges.

Test Methods

¹ DIN 16945	⁴ DIN 53482
² DIN 53481	⁵ DIN 53455
³ DIN 53483	⁶ DIN 53505

Handling Properties

Cure Guide: approx 2-3 days at 23°C
approx 2 hours at 60°C

The appropriate curing schedule time depends on the quantity of resin involved.

Mixing

The resin is supplied in a side by side cartridge, which is fitted onto a simple hand or power gun. Mixing and dispensing is achieved through a static nozzle fitted to the front of the cartridge.

Deareration

Air introduced during mixing can be removed by evacuating for 5 to 15 minutes at 5 to 10mm of mercury (Hg) absolute pressure.

Container walls should be several times the height of liquid resin to contain the foaming that takes place under vacuum. Allow the froth to rise and collapse, and then reapply vacuum for another few minutes.

Deareration is not appropriate with the thixotropic versions.

Storage

The cartridge should be stored in a cool, dry place and when not in use, should be kept tightly closed.

Handling Precautions

Many of the reactive materials used with epoxy resin have been reported to cause irritation to sensitive skin. The user is cautioned to avoid contact with the resin and hardener. Avoid eye contact. The use of protective clothing is suggested. If contact occurs, the skin should be washed immediately with mild soap and water. In case of eye contact, flush immediately with plenty of water for at least 10 minutes and consult your doctor. Use only in well ventilated areas and avoid prolonged or repeated breathing of vapours.

For further health and safety information, please contact the Toxicology Department at 3M UK PLC. Tel: (0344) 858000.

Samples and supply details about individual products are available from your local 3M Electrical Specialties Technical Representative who may be contacted via the 3M Sales Office (Tel: 0234 268868).

Technology – Leaders

The range of ScotchTM and ScotchcastTM products available from Electrical Specialties Group utilise the following technologies:

- Heat Shrink Tubing
- Liquid and Powder Epoxy Resins
- Polyurethane Liquid Resin
- Cold Shrink Tubes
- Pressure Sensitive Adhesive Tapes

Properties

	Typical Value*
Viscosity (centipoise at 23°C) ¹	7000
Specific Gravity ¹	1.1
Gel Time (minutes at 23°C) ¹	150
Electric Strength (kV/mm) ²	22
Dielectric Constant (50Hz at 23°C) ³	4.8
Dissipation Factor (50Hz at 23°C) ³	0.1
Volume Resistivity (ohm-cm at 23°C) ⁴	10
Tensile Strength Strength (MPa) ⁵	16
Elongation (% at break) ⁵	74
Hardness (shore D) ⁶	60

* All figures quoted are typical values and are not intended for specification purposes.

IMPORTANT NOTE TO PURCHASER

All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but their accuracy and completeness are not guaranteed. The user shall be responsible for determining the suitability of the product for his particular application. To discuss your application requirements please call your 3M representative.

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