

# 3M™ Scotchcast™ Re-enterable Insulating Electrical Resin 2123

Data Sheet

October 2010

## Description

3M™ Scotchcast™ Re-enterable Electrical Resin 2123 is a soft, two-part polybutadiene resin encapsulant designed especially for re-enterable splice protection. It is formulated for virtually every electrical application requiring a soft, re-enterable resin with good handling and performance characteristics. This resin is also used as the insulating material for cable splices operating at 1000 volts, and is rated for continuous use at 194°F (90°C) with an overload rating of at 266°F (130°C). It may be stocked to cover most re-enterable resin needs, ending the need for multiple encapsulant inventories.

Scotchcast Resin 2123 is formulated with excellent wetting properties and low viscosity. The resin flows well even at low temperatures, filling the closure and minimizing voids.

Scotchcast Resin 2123 is packaged in a convenient two-part closed mixing pouch. The contents of each pouch are:

	Weight oz (g)	Volume in <sup>3</sup> (cm <sup>3</sup> )
Size C	12.3 (350)	23.7 (338,3)
Size D	21.2 (600)	40.6 (665,3)

## Features

- Bonds to most cable jackets
- Bonds to itself and existing Scotchcast Resin 2112
- Re-enterable
- Closed mixing pouch for easy mixing and pouring
- Excellent multi-purpose moisture sealing resin

## Other Applications

- To replace or repair the jacket on both single and multi-core power cables
- To seal the crotch or sheath when terminating multi-core cables

## Typical Properties

Not for specifications. Values are typical, not to be considered minimum or maximum. Properties measured at room temperature 73°F (23°C) unless otherwise stated.

Physical Properties (Test Method)	Typical Value US units (metric)
Color	Amber Translucent
Density	0.53 oz/in <sup>3</sup> (0,91 g/cm <sup>3</sup> )
Tensile Strength (ASTM D-412)	10.7 psi (0,75 kG/cm <sup>2</sup> )
Elongation (ASTM D-412)	300%
Tear Strength (ASTM D-624)	1.6 lb/in @75°F (585 N/m @ 24°C)
Maximum Exotherm (100 g) (3M Test Method)	6°F rise (3°C rise)
Gel Time @75°F (23°C)	62 min.
Moisture Absorption (ASTM D-570)	0.2%

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## Typical Properties, *continued*

Not for specifications. Values are typical, not to be considered minimum or maximum. Properties measured at room temperature 73°F (23°C) unless otherwise stated.

Electrical Properties (Test Method)	Typical Value
Insulation Resistance (MS 17000, Section 1182)	>4 x 10 <sup>11</sup> ohms
Dielectric Strength (ASTM D-149)	>240 V/mil @ 23°C 125 mils thickness
Dielectric Constant (ASTM D-150)	<1,2 100 Hz, 23°C
Dissipation Factor (ASTM D-150)	0.0008 100Hz, 23°C

## Usage Information

**IMPORTANT:** Product should remain in the sealed envelope until ready to use. In cold weather, warm closed mixing pouch to 40°F (4.4°C) or warmer before mixing and pouring. Keep in a warm area, such as truck cab or inside pocket, until ready to use.

### Closed Mixing Pouch

- Tear open the protective envelope and remove the closed mixing pouch.
- Before breaking the barrier, squeeze the bag to pre-mix the separate components.
- Firmly grasp each flat side of the bag near the center barrier, while pulling the sides of the barrier apart and rolling the sides of thumbs through the barrier. Break the barrier all the way across to the side seals.
- Alternately squeeze each end of the bag, forcing the resin back and forth (60 seconds).
- Strip the resin from the corners of the bag and continue to mix until the color is uniform (additional 2 minutes).
- Clip off a corner of the closed mixing pouch and pour.

### Typical Cure Time:

Temperature	Approximate Cure Time
70°F (21°C)	24 hours

### Handling and Safety Precautions

Read all Health Hazard, Precautionary and First Aid statements found in the Material Safety Data Sheet (MSDS) and/or product label of chemicals prior to handling or use.

## Shelf Life & Storage

3M™ Scotchcast™ Re-enterable Electrical Resin 2123 has a 3-year shelf life from date of manufacture when stored in a humidity controlled storage (10°C/50°F to 27°C/80°F and <75% relative humidity).

## Availability

Please contact your local distributor; available from [3M.com/electrical](http://3M.com/electrical) [Where to Buy] or call 1.800.245.3573.

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