

3M™ Scotchcast™ Connector Sealing Pack 3570G-N

Data Sheet

October 2013

Description

The 3M™ Scotchcast™ Connector Sealing Pack 3570G-N insulates and provides protection for electrical spring connectors against dust, soil, water, and other environmental elements.

Each sealing pack contains a specific amount of the two-part 3M™ Scotchcast™ Epoxy Resin 3570G-N in a unique closed mixing pouch. The resin generates its own heat to cure and its compatibility with spring connectors makes this sealing pack a convenient insulating and encapsulating resin for electrical spring connections.

The 3570G-N sealing pack will accommodate one 3M™ Performance Plus Wire Connector O/B⁺, R/Y⁺, T/R⁺, T/Y⁺ or one 3M™ Electrical Spring and Grounding Connector 312 or 512.

Agency Approvals & Self Certifications

RoHS
2011/65/EU

"RoHS 2011/65/EU" means that the product or part does not contain any of the substances in excess of the maximum concentration values ("MCVs") in EU RoHS Directive 2011/65/EU. The MCVs are by weight in homogeneous materials. This information represents 3M's knowledge and belief, which may be based in whole or in part on information

Features

- Thermosetting; will not melt or run once it cures
- Generates its own heat to cure
- Stable in applications at elevated temperatures up to 121°C
- Unique closed mixing pouch for mixing the resin and encapsulating the appropriate spring connectors
- Tough, excellent multi-purpose moisture sealing resin

Applications

- For insulating electrical spring connectors
 - For potting and protecting a wide variety of electrical spring connections
 - For protecting against dust, soil, water and other environmental elements
-

3M™ Scotchcast™ Connector Sealing Pack 3570G-N

Typical Physical And Electrical 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 Property (Test Method)	Typical Value US units (metric)
Color	Black
Density (ASTM D792)	0.65 oz/cu in (1,13 g/cc)
Hardness (ASTM D2240)	60 Shore D
Tensile Strength (ASTM D638)	1779 psi (125 kg/cm ²)
Elongation (ASTM D638)	57%
Glass Transition Temperature, T _g (DSC)	70°F (21°C)
Maximum Exotherm (100g) (ASTM D2471-99)	140°F (60°C)
Gel Time @ 73°F (23°C) (ASTM D2471-99)	8-12 minutes
Weight Loss, Heat Aging (3M Method TM-451) @ 250°F (121°C)	1 week 3.31% 2 weeks 5.33%
Adhesion to Metals (lb/in ²) (3M TM456)	
Copper	112.5
Brass	109.25
Steel	172.35
Aluminum	64.8
Adhesion to Cable Jackets (lb/in ²) (3M TM457)	
Vinyl	53.8
Neoprene	112.5
Nylon	>26.5
XLPE	223.4
Weight Gain (1 week, boiling water) (ASTM D471)	4.76%

Electrical Property (Test Method)	Typical Value US units (metric)
Dielectric Strength (ASTM D149)	435 V/mil (17.1 kV/mm)
Dielectric Constant @ 60Hz (ASTM D150)	
73°F (23°C)	2.2 pF
194°F (90°C)	8.9 pF
Dissipation Factor @ 60Hz (ASTM D150)	
73°F (23°C)	8.8%
194°F (90°C)	187%

3M™ Scotchcast™ Connector Sealing Pack 3570G-N

Installation IMPORTANT: The 3M™ Scotchcast™ Connector Sealing Pack 3570G-N should remain sealed in the guard bag (white aluminized bag) until ready to use. In cold weather, warm closed mixing pouch to 50°F (10°C) or warmer prior to mixing. Keep in a warm area, such as truck cab or inside pocket, until ready to use.

1. Thoroughly clean and dry the surface of the substrate to which the material is desired to bond.
2. Remove guard bag, using caution not to damage inner bag.
3. Grip both edges of bag at the center barrier (fig. 1) and wrinkle and flex the bag across the barrier. This will weaken the barrier.
4. Squeeze the clear side of the resin, forcing the resin through the center barrier.
5. Mix thoroughly to a uniform color by squeezing contents back and forth 25-30 times.
6. Squeeze resin to one end of bag and cut off other end. (fig. 2)
7. Slowly insert connection into sealing pack until it fits snugly against the opposite end. (fig. 3)

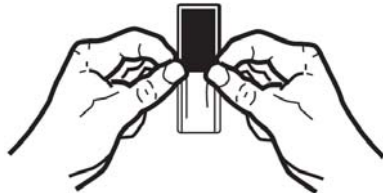


fig. 1

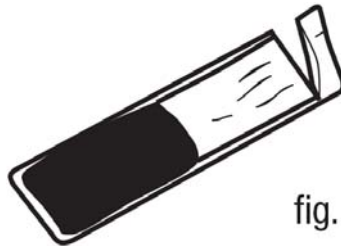


fig. 2

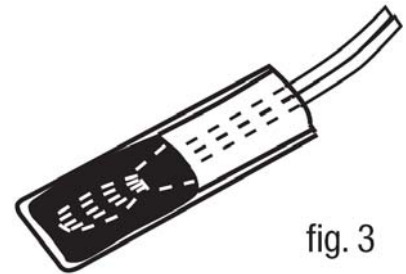


fig. 3

8. Wrap open end of bag with Scotch® Super 33+™ Vinyl Electrical Tape and position the taped end up until resin gels (8-12 min. @ 73°F (23° C)). (fig. 4)

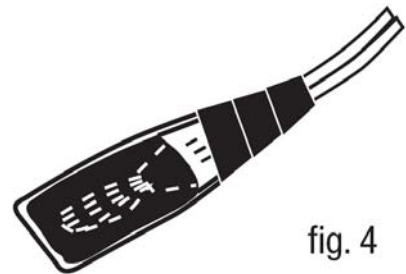


fig. 4

Cure Time: 24 hrs @ 70°F (21°C)

EHS



Caution

Working around energized electrical systems may cause serious injury or death. Installation should be performed by personnel familiar with good safety practice in handling electrical equipment. De-energize and ground all electrical systems before installing product.

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.

Product Specifications

The material must be supplied in a two-part plastic composite bag with a barrier separating the epoxy from the polyol. The barrier must be capable of being broken to permit mixing the two parts without opening the bag.

3M™ Scotchcast™ Connector Sealing Pack 3570G-N

Engineering/ Architectural Specifications	The material must be 3M™ Scotchcast™ Epoxy Resin 3570G-N. It must be packaged in the 3M two-part plastic composite closed mixing pouch. The resin must be mixed within the closed mixing pouch simply by separating the barrier between the two parts of the bag and working the contents back and forth within the bag.
Shelf Life & Storage	The 3M™ Scotchcast™ Connector Sealing Pack 3570G-N has a 2-year shelf life from date of manufacture when stored under humidity controlled storage (10°C/50°F to 27°C/80°F and <75% relative humidity), provided the guard bag (white aluminized bag) remains unopened. For best results, use within one hour of opening the guard bag.
Availability	Please contact your local distributor; available from 3M.com/electrical [Where to Buy] or call 1.800.245.3573.

3M, Scotch, Super33+ and Scotchcast are trademarks of 3M Company.

Important Notice	All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product, which are not contained in 3M's current publications, or any contrary statements contained on your purchase order, shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.
Warranty; Limited Remedy; Limited Liability	This product will be free from defects in material and manufacture at the time of purchase. 3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.



Electrical Markets Division

6801 River Place Blvd.
Austin, TX 78726-9000
800.245.3573
Fax 800.245.0329
www.3M.com/electrical

Please recycle
© 3M 2013 All rights reserved
78-8141-4501-3 Rev B