



Scotchcast™

Electrical Resin 266

One-Part, Epoxy Powder Resin

- Specially formulated for use in the electrostatic fluid bed process, but also can be used in conventional fluid beds
- Superior thermal shock and impact resistance
- Excellent heat, chemical and moisture resistance
- Fast cure
- Excellent flow
- Also available in a teal (blue/green) color designated Scotchcast™ Electrical Resin 266 TC.

3M™ Scotchcast™ Electrical Resin 266 is a general purpose, epoxy powder resin. It is a one-part, green pigmented, rapid heat-curing coating. It is designed to provide a continuous, tough moisture and chemical resistant dielectric coating to a variety of metal substrates.

3M Scotchcast Electrical Resin 266 is manufactured by a fusion blend process insuring that each individual particle of powder contains all the components necessary to effect a complete cure.

3M Scotchcast Electrical Resin 266 is applied to a room temperature object via the electrostatic fluid bed process. The negatively charged resin particles are attracted to the grounded object to be coated. Coating thicknesses up to 25 mils may be obtained. Because of its superior charging capabilities, 3M Scotchcast Electrical Resin 266 exhibits excellent slot penetration on motor stators and armatures. Other uses include insulating bus bars and cores.

Scotchcast™ Electrical Resin 266 – Typical Properties

Property	Value
Color	Green
Specific Gravity ¹ (cured)	1.55
Dielectric Strength ³ 12 to 15 mil / 305µm to 375µm coating	1000 v/mil / 39v/micron
Thermal Shock ² - 10 cycles - 75°C (167°F) to 155°C (311°F) 12-15 mil / 305µm to 375µm coating 1/8" sandblasted steel panel	Passes
Impact Resistance ² 12-15 mil / 305µm to 375µm coating 1/8" sandblasted steel panel Gardner 5/8" Radius Impact Tester	160 inch-lbs / 18.2J
Cut-Through Resistance ² - 1 lb. wt.: 18 AWG wire	260°C (500°F)
Abrasion Resistance ⁵ - Removed from 12 to 15 mil / 305µm to 375µm coating	.10 grams
Edge Coverage ² - 12 to 15 mil / 305µm to 375µm coating on flat	40%
Gel Time ² @ 193°C (380°F) hot plate	12-16 seconds
Thermal Conductivity ⁴	6 x 10 ⁻⁴ Cal / sec / cm ² / °C / cm

*Not recommended for specification purposes. Product specifications will be provided upon request.

Test Methods

¹ ASTM D-792

² 3M Test Method

³ ASTM D-149

⁴ MIL- I - 16923E

⁵ ASTM D-4060

Usage Information

Method of Application

Before resin is applied, the object to be coated should be clean, dry and free of oils. 3M™ Scotchcast™ Electrical Resin 266 is first placed in an electrostatic fluid bed and charged (40 to 90KV), causing the epoxy resin particles to repel each other and move upward. This results in a cloud of charged particles above the surface of the bed. A grounded object is coated when passed through or placed in this cloud. 3M Scotchcast Electrical Resin 266 can be deposited in film thicknesses up to 25 mils/635 microns on objects at room temperature substrate, the powder can be selectively removed. Air used for fluidizing should be dried to a maximum of -20°F (-29°C) dew point.

Curing

The cure of resin 3M Scotchcast Electrical Resin 266 is accomplished by heating the coated part to a temperature above the melting point of the resin. The resin then melts, flows to a controlled extent, and coalesces into a smooth, continuous, thin, essentially uniform coating, which cures and bonds to the substrate. The coating maintains its uniformity on flat surfaces as well as in corners and on high points of the part. Either convection oven or induction heating may be used as a heat source for curing the resin.

The figures below represent nominal guidelines for obtaining the resin's adhesion, impact and chemical resistance characteristics.

Cure Temperature	Time
177°C (350°F)	5 minutes
204°C (400°F)	150 seconds
232°C (450°F)	50 seconds

Ordering Information

Contact your local Representative, or for a copy of the Material Safety Data Sheet, or to place an order call:
Phone: 800/722-6721 or 512/984-9385
Fax: 877/601-1305 or 512/984-6296

3M 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 for a period of one (1) year from 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.**



Corrosion Protection Products

6801 River Place Blvd.
Austin, TX 78726-9000
www.3M.com/corrosion

Please Recycle. Printed in USA.
© 3M 2007. All Rights Reserved.
80-6111-8393-0 Rev C

Time does not include that required to reach the cure temperature. The user must determine the time required for the coated substrate to reach listed temperatures.

Handling and Safety Precautions

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

Storage

Laboratory evaluation indicates that the usable shelf life of this product is twelve (12) months from the date of manufacture when stored at temperatures not exceeding 27°C (80°F), provided the material is stored in its original container. Care should be taken when removing the resin from the original container to prevent inclusion of foreign material. After resin removal, the bag should be retied immediately. This will help to avoid agglomeration caused by excess moisture. For best results, store in a cool, dry place.

UL Recognition

Scotchcast™ 266 is UL recognized for continuous use up to 130°C (class B). It is listed under UL file E35075. Underwriters Laboratories (UL) recognized components are evaluated for use in end products or equipment that is listed or classified by UL.

To achieve UL recognition, component use must meet UL specifications and conditions of acceptability for proper and safe use.