3M™ Scotchcast™ Potting Kit 2136

Data Sheet **January 2014**

Description

The 3M™ Scotchcast™ Potting Kit 2136 is designed to provide protection against corrosion and possible deteriorating effects of fresh swimming pool or fountain water and sunlight by reliably encapsulating the 8 AWG ground connection in a wet-niche shell as required by NEC® when using rigid, non-metallic conduit in the installation of wet-niche underwater lighting fixtures. The 2136 compound is UL Listed as a potting compound for swimming pool, fountain, or spa equipment and is for use only where adhering to copper, copper alloy and stainless steel materials.

3M™ Scotchcast™ Potting Compound 2136 is a thixotrophic polyurethane resin, designed to resist dripping or sagging, and contained in an easy mix 1.5 oz. closed mixing pouch. At temperatures above 40°F (18°C) the compound will firm up in minutes. Encapsulated connections should be allowed to cure for 4 hours prior to submersion.

Agency Approvals & Self Certifications

Meets requirements of UL Subject 676A
(Product category WCRY, File E130394)

UL LISTED
Swimming Pool, Fountain and Spa Equipment Conductor Splice Potting Compound 2L02

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 provided by third party suppliers to 3M.

Kit Contents

Each kit contains enough material to complete one fixture.

- 1 package of 3M™ Scotchcast™ Potting Compound 2136
- 1 Cleaning Pad Kit
- 1 Applicator Stick
- 1 Pair of Gloves

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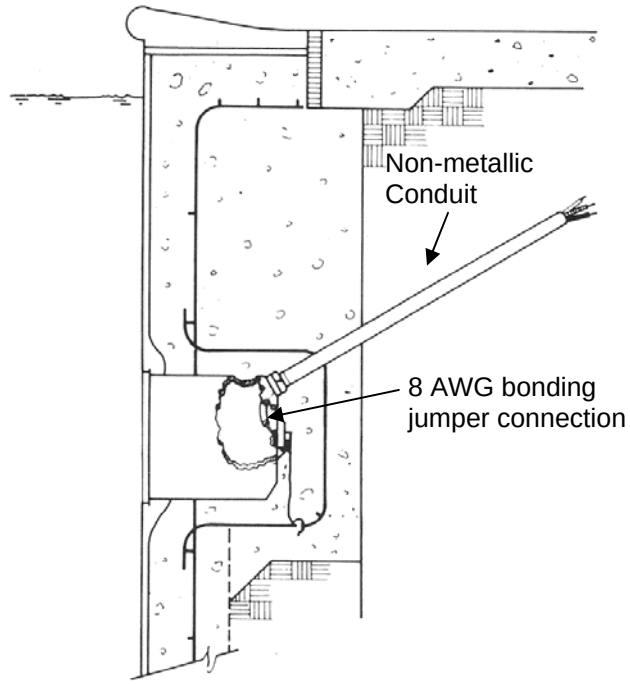
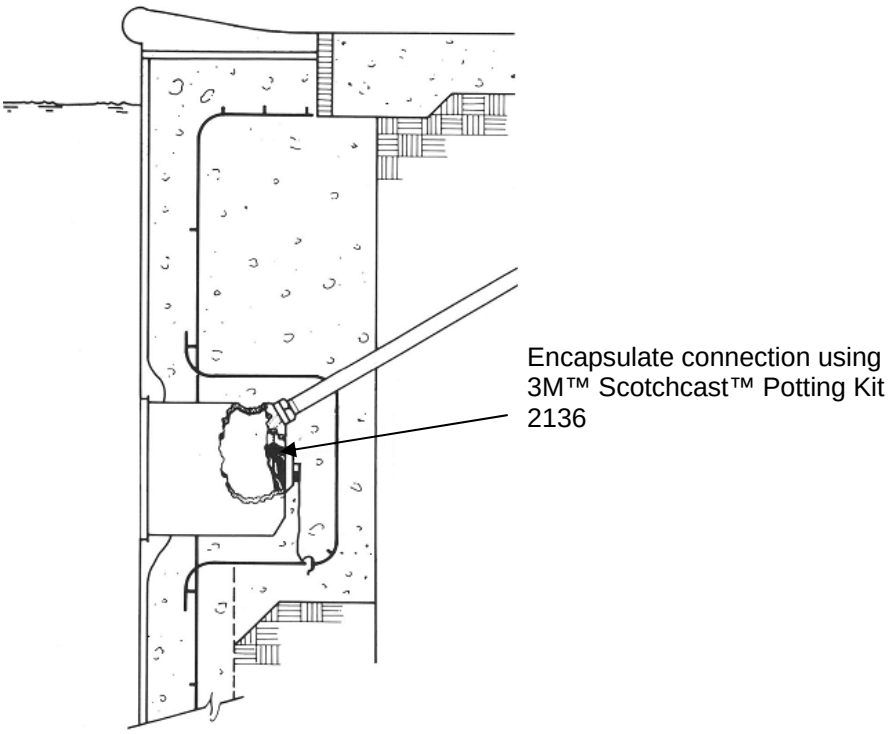
Usage Information 3M™ Scotchcast™ Potting Kit 2136 is intended for use in encapsulating the 8 AWG ground termination in a wet-niche shell. Each kit contains enough material to complete one fixture.





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
Specific Gravity (ASTM D891)	
Prepolymer [Part A]	1.077 (g/cm³)
Polyol [Part B]	0.98 (g/cm³)
Mixed	1.02 (g/cm³)
Viscosity @ 25°C (3M Method TM173)	
Prepolymer [Part A]	770 cps
Polyol [Part B]	1694 cps
Density (ASTM D792)	0.55 oz/in^3 (0,95 g/cm^3)
Hardness (ASTM D2240)	83 Shore A
Tensile Strength (ASTM D412 @ 20'/min.)	932 psi (65,52 kg/cm^2)
Elongation (ASTM D412 @ 20'/min.)	418%
Glass Transition Temperature, T_g (DSC)	-103ºF (-75ºC)
Maximum Exotherm, 100g (3M TM67)	153ºF rise (67,1ºC rise)
Moisture Absorption (1 week, boiling water) (ASTM D471)	6.28%
Weight Loss, Heat Aging (3M TM451) @ 250°F (121°C)	1 week 1.01% 2 weeks 1.28% 3 weeks 1.61%
Adhesion to Metals (lb/in^2) (3M TM456)	
Copper	415.4
Brass	222.5
Steel	461.8
Aluminum	243.5
Adhesion to Cable Jackets (lb/in^2) (3M TM457)	
Vinyl	101
Neoprene	109.2
Nylon	>24.6
XLPE	210.2

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Continued; Typical Physical and Electrical Properties

Electrical Property (Test Method)	**Typical Value** US units (metric)
Dielectric Strength (ASTM D149)	334 V/mil (13,2 kV/mm)
Dielectric Strength after 7 day 100°C Exposure (ASTM D149)	318 V/mil (12,5 kV/mm)
Dielectric Constant @ 60Hz (ASTM D150)	
73°F (23°C) 194°F (90°C)	3.17 pF 3.2 pF
Dissipation Factor @ 60Hz (ASTM D150)	
73°F (23°C) 194°F (90°C)	6% 38.7%

Engineering/ Architectural Specifications

The material must be 3M™ Scotchcast™ Potting Compound 2136. It must be packaged in the 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.

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Installation

I. Preparation

A. Wipe area and cable insulation to be covered by 2136 potting compound with solvent saturated pad to remove all dirt, moisture and grease.

II. Mix Compound

Remove closed mixing pouch from the outer pouch [Note: Do not open outer pouch until ready to use].

A. Firmly grasp each flat side of closed mixing pouch near center barrier; at same time, pull sides of barrier apart and roll sides of thumbs though barrier. Break barrier all the way across to side seals. See Fig. 1.
B. Using applicator stick, squeegee clear side into the black side.
C. Turn pouch around and, using applicator stick, squeegee all resin to the opposite side.
D. Alternately squeeze ends of pouch forcing compound rapidly back and forth for 15 seconds. See Fig. 2.
E. Strip compound from corners of bag between fingers. Mix again for 15 seconds until color is completely uniform (about 30 vigorous squeezes).
See Fig. 2.
F. Force all of the compound to one end of pouch. The wooden applicator may be used like a squeegee to force the resin.

III. Application

A. Use gloves provided to avoid skin contact with compound. Clip corner of closed mixing pouch and immediately apply compound onto area of wet-niche or dry-niche fixture termination to be covered. Spread the compound over and around the termination with wooden applicator making sure the area is covered with at least 1/8" thickness of compound. Compound should be allowed to cure for 4 hours before exposure to water.

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.

3M™ Scotchcast™ Potting Kit 2136

Shelf Life & Storage	3M™ Scotchcast™ Potting Compound 2136 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), 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.

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