



**RoHS**  
2002/95/EC  
**REACH**  
1907/2007/EC

Scotchcast™

## Electrical Insulating Resin 2131

### Product Description

3M™ Scotchcast™ Resin 2131 is a two component, flame retardant, flexible polyurethane resin for room temperature curing. The resin has been designed for electrical insulation and mechanical protection of flexible electrical cables joints. Its unique formulation makes it particularly suited to withstand the rugged conditions under which mine and portable cable must operate.

The 2131 resin is classified as LI-LMP-MMP (low voltage insulation and mechanical protection) according Cenelec HD 631.1 S2 Standard.

Once the hardening is complete, the resin provides impact resistance and durability against moisture and atmospheric corrosion.

### Application

For flame retardant mechanical protection and electrical insulation of flexible low voltage electrical joints installed and flame retardant indoor and outdoor, underground and submerged applications.

### Features

Robust and flexible  
Good adhesion on metals and different plastics.  
Excellent hydrolytic stability  
Low exothermic reaction temperature

### Process Figures

Mixing Ratio (pbw)	A : B	100 : 50
Pot Life	At 5 °C	24 min
	At 23 °C	13 min
	At 40 °C	5 min

## Typical Properties

Note: This data is not to be used for specifications.

Values listed are typical and should not be considered minimum or maximum.

Property	Value	Specification
<b>Part A</b>		
Viscosity 23°C	5400 mPas	EN ISO 2555
<b>Part B</b>		
Viscosity 23°C	1350 mPas	EN ISO 2555
<b>Part A&amp;B (mixed)</b>		
Density	1,15 g/cm <sup>3</sup>	ISO 3675
Viscosity 23°C	3300 mPas	EN ISO 2555
<b>Part A&amp;B (cured*)</b>		
<b><i>Mechanical properties</i></b>		
Hardness Shore A	80	EN ISO 868
Tensile Strength	5,5 MPa	EN ISO 527
Elongation at Break	150 %	EN ISO 527
Glass Transition Temperature	- 80 °C	EN 53445
<b><i>Electrical properties</i></b>		
Volume resistivity		IEC 60250
at 23 °C	1,89E+13 Ωcm	
at 80 °C	1,20E+10 Ωcm	
Dielectric Strength		EN 60243-1
at 23 °C	20 kV/mm	
Dissipation factor		IEC 60250
at 23 °C	< 0,038	
at 80 °C	< 0,530	
Dielectric constant		IEC 60250
at 23 °C	5,5	
at 80 °C	9,5	

**Usage Information:**

The resin will be supplied, in two-chamber plastic pouches with peelable barrier in the correct stoichiometric proportion. This type of packaging will assure the correct mixing ratio for applying the resin.

For other information, relevant for the usage of the resin, like Gel-Time, Pot-Life, viscosity, density etc. please see above the typical properties.

**Storage:**

3M™ Scotchcast™ Resin 2131 has a shelf life of at least 36 months when stored between 10 °C and 40 °C with humidity level < 75 % in the originally sealed bag.

The expiration date of each product appears on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, it is the responsibility of the user to determine applicability of the resin.

**Safety and Handling:**

3M provides its customers with a product specific Material Safety Data Sheet (MSDS) to cover potential health effects, safe handling, storage, use and disposal information. 3M strongly encourages its customers to review the MSDS on its products prior to their use.

**Product Stewardship:**

3M has a fundamental concern for all who make, distribute and use its products, and for the environment in which we live. This concern is the basis of our philosophy and policies by which we assess the health and environmental information on our products and then take the appropriate steps to protect employee, the public health and the environment.

**Customer Notice:**

3M encourages its customers and potential users of 3M products to review their applications for such products from the standpoint of human health and environmental quality. To help ensure that 3M products are not used in ways for which they were not intended or tested. 3M personnel are available to assist customers in dealing with ecological and product safety considerations. Your 3M sales representative can arrange for the proper contacts.

**Regulatory Status:**

The 2131 Resin is in compliance with all European directives and regulations, relevant for this product.

The 2131 Resin is in compliance to EU directive 2002/95/EC (RoHS) and EU regulation 1907/2007/EC (RAECH)

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### **Important Notice**

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