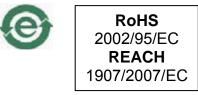
Datasheet





Electrical Insulating Resin 40G

Product Description

3M[™] Scotchcast[™] Resin 40G is a non-filled, two component polyurethane resin for room temperature curing. The resin has been designed for electrical insulation and mechanical protection of electrical cable joints.

The 40G resin is classified as LIW (low voltage insulation water curable) according Cenelec HD 631.1 S2 Standard.

Once cured, the resin provides impact resistance and durability against moisture and atmospheric corrosion.

Continuous operating temperature of installed product; -40°C to + 110°C

Application

Mechanical protection and electrical insulation of low voltage electrical joints installed for indoor and outdoor, underground and submerged applications.

Features

Good adhesion to metals and different plastics. Hydrophobic behaviour during the curing stage. Excellent hydrolytic stability Available with Closed Mix and Pour Delivery System Low exothermic reaction temperature.

Process Figures

Mixing Ratio (pbw)	A : B	100 : 42	
Pot Life	At 5 °C	39min	
	At 23°C	20min	
	At 40°C	11min	

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
Part A		
Density	1.07 g/cm ³	ISO 3675
Viscosity 23°C	1700 mPas	EN ISO 2555
Part B		
Density	1.23 g/cm ³	ISO 3675
Viscosity 23°C	210 mPas	EN ISO 2555

Property	Value	Specification		
Part A&B (mixed) Density Viscosity 5°C Viscosity 23°C Exothermic Reaction Temp 40°C Hydrophobic Behaviour Volume Shrinkage	1,16 g/cm³ 4600 mPas 900 mPas 95°C ≤10ml 4%	ISO 3675 EN ISO 2555 EN ISO 2555 HD 631.1 S2 HD 631.1 S2 EN ISO 3521		
Part A&B (cured*)				
<i>Mechanical properties</i> Hardness Shore D Tensile Strength Elongation at Break Impact Strength (without notch)	57 15 MPa 50 % No breakdown	EN ISO 868 EN ISO 527 EN ISO 527 EN ISO 179		
<i>Electrical properties</i> Volume resistivity at 23 °C at 80 °C	1.35E+15 Ωcm 1.26E+13 Ωcm	IEC 60250		
Dielectric Strength at 23 °C Dissipation factor at 23 °C	24kV/mm <0.01	EN 60243-1 IEC 60250		
at 80 °C Dielectric constant at 23 °C at 80 °C	<0.03 <6 9.5	IEC 60250		
Electrical properties after dry ageing				
Volume resistivity at 23 °C Dielectric Strength at 23 °C Dielectric constant	> 1.0E+14 Ωcm 30kV/mm	EN 60243-1		
at 23°C <i>Electrical properties after wet a</i> g	<10			
Volume resistivity at 23 °C	> 1.0E+14 Ωcm	IEC 60250		
Dielectric Strength at 23 °C Dielectric constant at 23 °C	24kV/mm <10	EN 60243-1 IEC 60250		

*curing and aging cycles according to Cenelec HD631.1 S2

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. The packaging includes a Closed Mix and Pour Delivery System. The integrated

The packaging includes a Closed Mix and Pour Delivery System. The integrated pouring spout is opened while attaching the mixed resin bag to the housing of the joint or by using the supplied opener.

Storage

3M[™] Scotchcast[™] Resin 40G has a shelf life of at least 36 months when stored between 10°C and 40°C with a humidity level <75% in the original 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.

Regulatory Status

3M[™] Scotchcast[™] 40G Resin is in compliance to EU directive 2002/95/EC (RoHS) and EU regulation 1907/2007/EC (REACH)

3M and Scotchcast are trademarks of 3M Company

Important Notice

All statements, technical information and recommendations related to the Seller's products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before utilizing the product, the user should determine the suitability of the product for its intended use. The user assumes all risks and liability whatsoever in connection with such use.

Any statements or recommendations of the Seller which are not contained in the Seller's current publications shall have no force or effect unless contained in an agreement signed by an authorized office of the Seller. The statements contained herein are made in lieu of all warranties, expressed or implied, including but not limited to the implied warranties of merchantability and fitness for a particular purpose which warranties are hereby expressly disclaimed.

SELLER SHALL NOT BE LIABLE TO THE USER OR ANY OTHER PERSON UNDER ANY LEGAL THEORY; INCLUDING BUT NOT LIMITED TO NEGLIGENCE OR STRICT LIABILITY; FOR ANY INJURY OR FOR ANY DIRECT; INDIRECT; INCIDENTAL OR CONSEQUENTIAL DAMAGES SUSTAINED OR INCURRED BY REASON OF THE USE OF ANY OF THE SELLER'S PRODUCTS.

Electrical Markets Division 3M United Kingdom PLC Sales Office PO Box 393 Bedford MK41 0YE Telephone: 0870 609 4639

3M Ireland Ltd Sales Office The Iveagh Building, The Park, Carrickmines, Dublin 18, Ireland Telephone: (01) 800 812 732 Fax: 353 1 280 3509

3M United Kingdom PLC Head Office 3M Centre, Cain Road Bracknell, Berkshire RG12 8HT Telephone: 01344 858 000

Page 3 of 3

Fax: 01234 229 433

Fax: 01344 858 758