

3M™ Scotchcast™

Electrical Insulating Resin 40 in Bags

1. Product description

The resin is delivered in a two-chamber pouch with a peelable chamber separation seam and an integrated spout, packed in an aluminium bag for humidity protection. All necessary information for handling, service and safety are printed on the protection bag. The resin is hydrophobic according to IEC 60455-3-8.

2. Applications

These resin bags can be used for low voltage electrical insulation and for mechanical protection of low and medium voltage applications. For use indoor and outdoor in underground and submerged applications.

3. Typical properties

| Physical properties | Typical value | Specification |
|--------------------------------|------------------------|---------------|
| Part A | | |
| Density | 0.99 g/cm ³ | ISO 3675 |
| Viscosity 23 °C | 1040 mPas | EN ISO 2555 |
| Part B | | |
| Density | 1.23 g/cm ³ | ISO 3675 |
| Viscosity 23 °C | 210 mPas | EN ISO 2555 |
| Part A&B (mixed) | | |
| Density | 1.06 g/cm ³ | ISO 3675 |
| Viscosity 5 °C | 2500 mPas | EN ISO 2555 |
| Viscosity 23 °C | 900 mPas | EN ISO 2555 |
| Exothermic Reaction Temp 40 °C | 104 °C | HD 631.1 S2 |
| Hydrophobic Behaviour | ≤ 10 ml | HD 631.1 S2 |
| Volume Shrinkage | 3.4 % | EN ISO 3521 |

Part A&B (cured*)

| Mechanical properties | Typical value | Specification |
|---------------------------------|---------------|---------------|
| Hardness Shore D | 56 | EN ISO 868 |
| Tensile Strength | 17 MPa | EN ISO 527 |
| Elongation at Break | 87 % | EN ISO 527 |
| Impact Strength (without notch) | No break | EN ISO 179 |

| Electrical properties | Typical value | Specification |
|------------------------------------|-------------------|---------------|
| Volume resistivity | | IEC 60250 |
| at 23 °C | 3.89E+14 Ωcm | |
| at 80 °C | 4.32E+10 Ωcm | |
| Dielectric Strength at 23 °C | 36 kV/mm | EN 60243-1 |
| Dissipation factor at 23 °C | <0.05 | IEC 60250 |
| Dissipation factor at 80 °C | <0.142 | |
| Dielectric constant at 23 °C | 4.9 8.9 IEC 60250 | |
| Dielectric constant at 80 °C | | |
| Properties after dry ageing | | |
| Volume resistivity at 23 °C | > 1.0E+14 Ωcm | IEC 60250 |
| Dielectric Strength at 23 °C | 38 kV/mm | EN 60243-1 |
| Dielectric constant at 23°C | <10 | IEC 60250 |
| Properties after wet ageing | | |
| Volume resistivity at 23 °C | > 1.0E+14 Ωcm | IEC 60250 |
| Dielectric Strength at 23 °C | 34 kV/mm | EN 60243-1 |
| Dielectric constant at 23°C | <10 | IEC 60250 |

Note: This data is not to be used for specifications. Values listed are typical and should not be considered minimum or maximum. *curing and aging cycles according to Cenelec HD631.1 S2.

4. User information

4.1 Available Sizes

| | | |
|------------|---------------|-----------------|
| Size A90: | Scotchcast 40 | 90 ml / 104 gr |
| Size B200: | Scotchcast 40 | 200 ml / 230 gr |
| Size C370: | Scotchcast 40 | 370 ml / 426 gr |

4.2 Process Figures

| | | |
|----------|----------|--------|
| Pot Life | at 5 °C | 39 min |
| | at 23 °C | 20 min |
| | at 40 °C | 11 min |

4.3 Usage Information

The resin is supplied in a two-chamber plastic pouch with a peelable barrier seam in the correct stoichiometric proportion. This type of packaging assures the correct mixing ratio when applying the resin. The packaging features a Closed Mix and Pour Delivery system. The integrated pouring spout must be opened while attaching the mixed resin bag to the housing of the joint or by using the supplied opener.

4.4 Regulatory Status

The 40 Resin complies with EU directive 2011/65/EU (RoHS) and EU regulation 1907/2006/EC (REACH).

4.5 Storage

3M™ Scotchcast™ Resin 40 has a shelf life of 36 months from the date stated on original box, when stored between 10°C and 40°C with a humidity level < 75% in the originally sealed bag.

4.6 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.

5. Additional Information

To request additional product information, see address below.

Important notice

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluates the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application.

Values presented have been determined by standard test methods and are average values not meant to be used for specification purposes.

All questions of warranty and liability relating to 3M products are governed by the terms of the respective sale subject, where applicable, to the prevailing law.

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