Scotchcast™ 2123

Re-Enterable Electrical Insulating Resin

1. Product Description

3M™ Scotchcast™ 2123 is a soft, two-part polybutadiene resin encapsulant, designed for re-enterable splice protection.
It is formulated for virtually every electrical application requiring a reliable, soft, re-enterable resin with good handling and performance characteristics.
Scotchcast™ 2123 has excellent wetting properties and low viscosity. The resin flows well even at low temperatures, filling the closure and minimizing air voids.

2. Applications

Scotchcast™ 2123 is used for electrical insulation and moisture sealing of multicore low voltage cables up to 0,6/1,0(1,2) kV in junction boxes where a re-enterable system is required.

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3. Features

- Re-accessibility of the cable connection
- Homogeneous and reliable insulation
- Good adhesion of the resin on cables and on itself
- Excellent protection against water
- Low exothermic reaction temperature (0,6 K raise from 24° C)
- Continuous operating temperature of the resin at 90° C, emergencies up to 130° C

4. Usage Information

4.1 Available Sizes

Scotchcast™ 2123 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

Size A: 2x 90 ml
Size C: 385 ml
Size D: 659 ml
Size E: 292 ml

4.2 Physical and Electrical Typical Properties

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

Property	Value*	Specification
Mixing ratio A:B	1:1	-
Color	Amber, Translucent	-
Pot Life 5° C	72 min	DIN 16945
23° C	56 min	
35° C	40 min	
Part A&B mixed		
Density	0,86 g/cm³	EN ISO 1183-1
Curing time at 21° C	24 hours	-
Part A&B cured*		
* curing and aging according to CENELEC HD631.1 S2		
Mechanical Properties		
Tensile Strenght	0,04 MPa	EN ISO 527
Elongation at break	31,6 %	EN ISO 527

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Property		Value*	Specification
Electrical properties			
Volume resistivity	at 23° C	> 7 x 10^{12}Ωcm	HD 429
	at 80° C	> 1 x 10^{11}Ωcm	HD 429
Dielectric Strength	at 23° C	22 kV/mm	EN 60243-1
Dissipation factor	at 23° C	0,03	IEC 60250
	at 80° C	0,1	IEC 60250
Dielectric constant	at 23° C	2,65	IEC 60250
	at 80° C	2,49	IEC 60250
Water absorption at 50° C,42d		0,18%	ISO 62

4.3 Performance Tests

Scotchcast™ 2123 has been tested with cable junction box according to IEC 60529 and meets the requirements of IP 68.

4.4 Application condition

Keep resin bags at 16° C or warmer before mixing. In cooler conditions keep resin bags in warmer area until ready to mix.

4.5 Storage conditions and shelf life

3M™ Scotchcast™ 2123 has a shelf life of at least 24 months when stored between 10° C and 27° 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.

5. User Information

5.1 Regulatory Status

Regarding actual Safety Data Sheet and EU regulation, e.g. REACH & ROHS, please contact your local Representative or search on:
https://www.3m.com/3M/en_US/company-us/SDS-search/

6. 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.

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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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