

# 3M™ Scotchcast™ Resin Kits

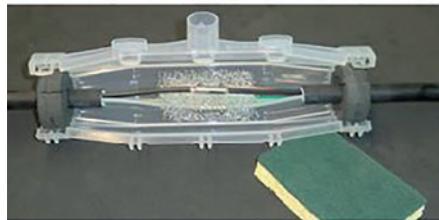
## 92-NBA 0 GS up to 92-NBA 7 GS

### Inline Joint Kit Series with Resin 4 GS

## 1. Product description

3M™ Scotchcast™ resin joint kits 92-NBA x GS are designed to be used for 1-core up to 5-core non shielded, polymeric, low voltage energy cables up to 0.6/1.0(1.2) kV.

92-NBA x GS kit series include the 3M™ Scotchcast™ 4GS Epoxy resin with colour mixing indicator, delivered in a two-chamber plastic pouch with an integrated spout and aluminium guard bag for protection against humidity. The kits also include a one-part transparent mould body for simple handling and easy control of the connector distances inside the body.



## 2. Applications

The application incorporates electrical insulation and mechanical protection of joints with compression or mechanical connectors. They can be used indoors and outdoors in underground and submerged applications.

## 3. Typical properties

### 3.1 Rated Voltage $U_0/U_{max}$

0.6/1(1.2) kV

### 3.2 Type Test

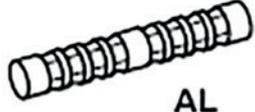
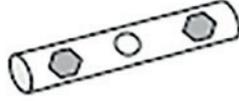
3M™ Scotchcast™ resin joint kits 92-NBA 0 GS to 92-NBA 7 GS passed the Type Test according to EN 50393 Table 3: Type I Joint, Sequence A1

## 4. User Information

### 4.1 Features

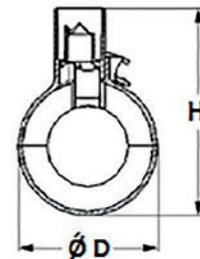
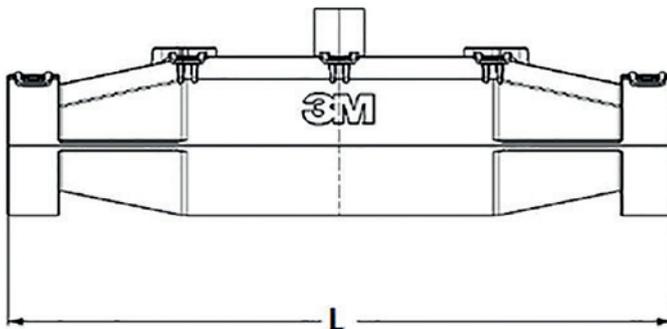
- ▶ Resin 4GS comes in a transparent two chamber plastic pouch with an integrated Closed Mixing and Pouring (CMP) system.
- ▶ CMR-, Isocyanate-, Halogen- and SVHC- free, Reach and RoHS compliant resin formulation with a colour mixing indicator.
- ▶ Strong adhesion of resin to metals and different plastics.
- ▶ Enhanced water and humidity resistance during resin curing.
- ▶ Great resistance to humidity whilst in storage.
- ▶ Operating temperature: -40°C to +110°C continuous use, 130°C overload.
- ▶ One-part mould body with snap fit closing system for quick and easy handling.
- ▶ Transparent mould body for easy control of connector distances in the joint.
- ▶ Web spacer for 4-core cable application to ensure the distance between connectors available for the sizes NBA 1 up to NBA 4.
- ▶ Pre-cut foam sealing elements to provide reliable sealing to the mould body without tooling for all cable application diameters.
- ▶ Abrasive sponge to clean and roughen the cable jacket.
- ▶ Closure cap to prevent any pollution.
- ▶ Detailed instruction drawings.

4.2 Selection Guide

Application Range [mm <sup>2</sup> ]							
Body Size	 Cu		 AL				 Ø mm
	4x	5x	4x	5x	4x	5x	
92-NBA 0	1.5 - 4	1.5 - 2.5	-	-	-	-	4 - 16
92-NBA 1	1.5 - 10	1.5 - 6	-	-	1.5 - 6	-	10 - 22
92-NBA 2	6 - 16	2.5 - 10	-	-	-	-	12 - 25
92-NBA 3	16 - 25	6 - 16	-	-	6 - 16	1.5 - 6	13 - 32
92-NBA 4	25 - 50	16 - 35	16 - 35	16 - 25	-	10 - 16	18 - 36
92-NBA 5	50 - 95	25 - 50	35 - 70	25 - 50	16 - 35	-	19 - 45
92-NBA 6	70 - 120	-	70 - 120	-	50 - 70	25 - 35	27 - 54
92-NBA 7	120 - 240	-	95 - 240	-	95 - 185	35 - 50	29 - 64

4.3 Dimensions and Resin Volumes

Body size	Length L [mm]	Diameter D [mm]	Height H [mm]	Type of Resin	Resin Identification	Number of Resin Bags
NB-A0	148	32	65	Epoxy	Scotchcast 4GS	1 × 90 ml
NB-A1	178	36	69	Epoxy	Scotchcast 4GS	1 × 135 ml
NB-A2	230	38	71	Epoxy	Scotchcast 4GS	1 × 200 ml
NB-A3	270	55	85	Epoxy	Scotchcast 4GS	1 × 370 ml
NB-A4	319	63	100	Epoxy	Scotchcast 4GS	1 × 680 ml
NB-A5	369	76	115	Epoxy	Scotchcast 4GS	1 × 1375 ml
NB-A6	479	101	144	Epoxy	Scotchcast 4GS	2 × 1375 ml
NB-A7	643	130	177	Epoxy	Scotchcast 4GS	3 × 2200 ml



#### 4.4 Handling

Keep resin bags at 10°C or warmer before mixing. In cooler ambient conditions keep resin bags in a warmer area until ready to mix.

The resin is delivered in a two-chamber pouch with an integrated spout and aluminium guard bag for protection against humidity.

The re-openable seam and integrated spout with a membrane provides a Closed, Mixing and Pouring system.

After opening the seam of the two-chamber pouch, the two resin components can be mixed. Sufficient mixing is indicated by the resin turning to a homogenous green colour (changing to darker green when fully cured). Note that colour gradation can change depending on storage conditions and application temperature.

To pour the resin into the mould body, connect the spout with the dome by turning it 180° in order to open the membrane.

The Closed Mixing and Pouring system provides resin handling without any skin contact.

The delivered two foam sealing elements can be adapted to the required cable diameter by removing the pre-cut adapter rings.

A web spacer ensures the minimum required distance to each connector. It can be applied for 3-core and 4-core cables.

For protection against pollution, apply the closure cap onto the dome. After curing, the remaining resin in the pouch can be disposed as house waste.

For other information, relevant for the usage of the resin, like gel-time, pot-life, viscosity, density etc. please see the relevant resin data sheet.

#### 4.5 Shelf Life and Storage

3M™ Scotchcast™ Resin 4GS Resin has a 36 month shelf life from date of production when stored between 5°C and 40°C and < 75% relative humidity in the originally sealed guard bag. The expiry date is stated on the guard bag and on the carton label. Storage at elevated temperatures can result in bleaching of the blue colorant and deviations of the mixed colour gradation from the colour code printed on the packaging. This has no influence on any other resin characteristics.

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

## 5. Additional information

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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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