



**REACH**  
1907/2007/EC

## Scotchcast™

### Resin Kits 92-N A 4 U/6 kV up to 92-N A 7 U/6 kV Halogen free 3,6/6 kV Inline Joint Kit Series with Resin 1402FR for Hazardous Areas

#### Application

3M™ Scotchcast™ resin joint kits 92-N A x U/6 kV are designed to be used for 3-core shielded or armoured, polymeric, medium voltage energy cables in hazardous areas. The application incorporates electrical insulation and mechanical protection of joints with compression or mechanical connectors which is flame retardant and chemical resistant. They can be used for indoor and outdoor, underground and submerged applications.

#### Features

- Resin 1402FR in transparent two chamber bags with integrated Closed Mixing and Pouring (CMP) system and separate opener for easy opening and pouring.
- Two part Mould Body with Snap Fit closing system for quick and easy handling.
- Transparent flame retardant Mould Body for easy control of connector distances.
- Flame retardant according UL94 V0.
- Chemical resistant, especially against hydro carbons.
- Spiral Spacer to ensure the distance between connectors and the earth screen.
- Closure cap to prevent any pollution.



## Kit content

- Transparent PC Mould Body with closure cap
- Scotchcast™ 1402FR resin bag with CMP system and separate opener
- Phase Spacer
- Copper Screen Sleeve with Constant Force Springs
- Scotch 23 electrical insulation tape
- Abrasive strip
- Finger gloves according EN 394
- Detailed instruction

## Product Description

3M™ Scotchcast™ resin inline joint kit will be delivered with a two part transparent mould body for simple and easy handling. Distances inside the body can be checked easily. All necessary dimensions, like application range, cable preparation are given in the detailed instruction.

The two half Mould Bodies can be adapted to the required cable diameter by cutting the marked areas at the ends.

The copper screen sleeve and the Constant Force Springs provide the connection to the outer screen of the cable. The three Spiral Phase Spacers ensures the minimum required distance to each connector and the outer screen.

The resin 1402FR is delivered in two chamber bag with integrated spout and aluminium Guard Bag for protection against humidity.

The reopenable seam and integrated spout with a membrane does provide a Closed, Mixing and Pouring system. A separate opener ensures a quick and tool free opening of the bag and provides an easy pouring of the resin.

After the seam of the two chamber bag was opened, the resin components can be mixed. To pour the resin into the mould body, the spout shall be connected with the opener by turning for 180°. While turning, the membrane is cut open to pour the resin.

To provide resin handling without any skin contact, finger gloves acc. EN 394 are provided with the kit.

For protection against pollution, a closure cap is applied onto the dome.

After curing, the remaining resin in the bag can be disposed as house waste.

## Product Selection

	92-N A 4 U/6 kV	92-N A 5 U/6 kV	92-N A 6 U/6 kV	92-N A 7 U/6kV
Diameter (mm)	28 - 54	33 - 63	45 - 80	50 - 83
NYFGY / NYCY (mm <sup>2</sup> )	25 - 50	70 - 120	150 - 185	185 - 240

## Testing

The full Scotchcast™ Resin Kit Series 92-N A 4 U/6 kV up to 92-N A 7 U/6 kV were tested according HD 629.1 02/2006 S2 test sequence B1 Table 5

Type of Test according to HD 629.1 S2 B1 Table 5		Results
DC Voltage Withstand Test	6 x U <sub>o</sub> ; t = 15 min	passed
AC Voltage Withstand Test	4,5 x U <sub>o</sub> ; t = 5 min	passed
Particle Discharge Test	2 x U <sub>o</sub> ; PD ≤ 10 pC	passed
Impact Test		passed
Impulse Voltage Withstand Test	60 kV positive and negative impulse	passed
Heat Cycle in air	63 cycles: 5h/3h	passed
Heat Cycle in water	63 cycles: 5h/3h	passed
Particle Discharge Test	2 x U <sub>o</sub> ; PD ≤ 10 pC	passed
Impulse Voltage Withstand Test	60 kV positive and negative impulse	passed
AC Voltage Withstand Test	2,5 x U <sub>o</sub> ; t = 15 min	passed

## 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 pouring spout will be opened by using the supplied opener.

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 1402FR has a shelf life of at least 36 months when stored between 10°C and 40°C with a 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 1402FR Resin is in compliance with all European directives and regulations, relevant for this product.

The 1402FR Resin is in compliance with EU regulation 1907/2007/EC (REACH).

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## Important Notice

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