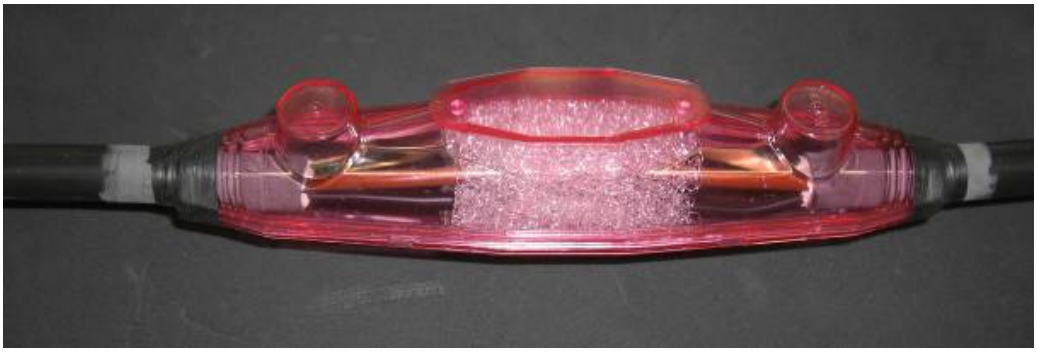
3M Scotchcast™

Resin Kits LVI-3/x Series
Inline Joint Kit with Resin 1402FR for Hazardous Areas
Flame Retardant, Hydrocarbon Resistant, Halogen Free
Suitable for use within Zoned 1 & 2 Areas

Application
3M™ Scotchcast™ resin joint kits LVI-3/x are designed to be used for multi-core, armoured polymeric, low voltage energy cables in hazardous areas. The joints also accommodate lead sheathed cable, and transition to PILC Cable. 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 Mix system and an 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 to UL94 V0.
- Chemical resistant, especially against hydro carbons.
- Spacer web to ensure the distance between connectors and the Mould Body.
- Closure cap to prevent any pollution.



Kit content
- Transparent PC Mould Body with closure cap
- Scotchcast™ 1402FR resin bag with opener
- Phase Spacer web
- Scotch 23 electrical insulation tape
- Armour connection components
- Copper Stocking
- Disposable gloves according to EN 394
- Detailed instruction
- Connectors (for LVI-3/2 and LVI-3/3 Joints only)

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Product Description

3M™ Scotchcast™ LVI-3/x Series Kits 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 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. A flame retardant spacer web ensures the minimum required distance to each connector and the Mould Body.
The resin 1402FR is delivered in two chamber bag with integrated spout and aluminium Guard Bag for protection against humidity.
The re-openable seam and integrated spout with a membrane provides a closed mixing system. A separate opener ensures a quick and tool free opening of the bag, and easy pouring of the resin.
To provide resin handling without any skin contact, disposable gloves meeting EN394 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 household waste.

Product Selection

CSA (mm²)	Kit Reference					
	1 Core 1kV	2 Core 1kV	3 Core 1kV	4 Core 1kV	1 Core 3.3kV	3 Core 3.3kV
1.5	-	LVI-3/2-C	LVI-3/2-C	LVI-3/2-C	-	-
2.5	-	LVI-3/2-C	LVI-3/2-C	LVI-3/2-C	-	-
4	-	LVI-3/2-C	LVI-3/2-C	LVI-3/2-C	-	-
6	-	LVI-3/2-C	LVI-3/2-C	LVI-3/2-C	-	-
10	-	LVI-3/3-C	LVI-3/3-C	LVI-3/3-C	-	-
16	-	LVI-3/3-C	LVI-3/3-C	LVI-3/3-C	-	LVI-3/4
25	-	LVI-3/3-C	LVI-3/4	LVI-3/4	-	LVI-3/4
35	-	LVI-3/4	LVI-3/4	LVI-3/4	-	LVI-3/4
50	LVI-3/2-C	LVI-3/4	LVI-3/4	LVI-3/5	LVI-3/3-C	LVI-3/5
70	LVI-3/3-C	LVI-3/5	LVI-3/5	LVI-3/5	LVI-3/3-C	LVI-3/5
95	LVI-3/3-C	LVI-3/5	LVI-3/5	LVI-3/6	LVI-3/3-C	LVI-3/6
120	LVI-3/4	LVI-3/5	LVI-3/6	LVI-3/6	LVI-3/4	LVI-3/6
150	LVI-3/4	LVI-3/6	LVI-3/7	LVI-3/7	LVI-3/4	LVI-3/6
185	LVI-3/4	LVI-3/6	LVI-3/7	LVI-3/7	LVI-3/4	LVI-3/7
240	LVI-3/5	LVI-3/7	LVI-3/7	LVI-3/8	LVI-3/5	LVI-3/7
300	LVI-3/5	LVI-3/7	LVI-3/7	LVI-3/8	LVI-3/5	LVI-3/8
400	LVI-3/5	LVI-3/7	LVI-3/8	LVI-3/8	LVI-3/5	LVI-3/8
500	LVI-3/5	-			LVI-3/5	
630	LVI-3/6	-			LVI-3/6	
800	LVI-3/6	-			LVI-3/6	
1000	LVI-3/7	-			LVI-3/7	

Note: For single core cables using LVI-3/2-C and LVI-3/3-C, the included connectors are not suitable.

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Testing

Scotchcast™ Resin Kit Series LVI-3/x were tested according EN50393 Table 3 / I / A1

Type of Test according to EN50393 Table 3 / I / A1		Results
AC Voltage Withstand Test in air	4kV AC/ 1 min	passed
Insulation Resistance Test in air	1kV DC	> 10.000MΩ
Heat Cycle in air	63 cycles: 5h/3h	passed
Heat Cycle in water	63 cycles: 5h/3h	passed
AC Voltage Withstand Test in water	4kV AC/ 1 min	passed
Insulation Resistance Test in water	1kV DC	> 10.000MΩ

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 Delivery System. The integrated pouring spout is 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 the Data Sheet for the 1402FR Resin.

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.
Please note: The LVI-3/8 Joints will have a maximum shelf life of 12 months as they use a higher volume of resin with different packaging to the smaller kits.

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 EU regulation 1907/2007/EC (REACH)

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