



Low Voltage Joints



M Seal heat shrinkable range of LV joints are specifically designed for covering cables in the range of 16 mm² to 300 mm² for operating voltages till 1.1 kV. The joints use the heat shrink technology for restoring cable insulation and environmental sealing and the mechanical protection is provided by metallic canisters or by casting polyurethane compound around the joint. The joints provide high electrical insulation values.

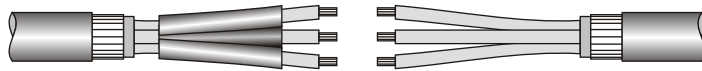
LV joints for Polymeric/ PVC cables: The joints for these cables are designed keeping in mind, the need for a reliable, easy to install jointing system which can be spooled and is resistant to aggressive environmental conditions and mechanical abuse. These joints are available in a single kit which can cover a range of cables.

LV joints for PILC cables: The kit comprises of similar components as above. In order to keep the cable impregnation in place and moisture out, the kits are provided with additional oil resistant transparent heat shrink tubes and an adhesive lined heat shrinkable sleeve to restore the lead sheath. For sealing of the cable crutch a adhesive lined break out is also provided.

LV Joints for PILC to Polymeric Cables: The kit for jointing PILC to Polymeric Cables is basically a combination of components as used in the above two types of joints. As there is no need for pouring and curing the cables are ready for use as soon as the joint is prepared.

These joints can be specifically designed to meet end customer requirements. M Seal heat shrink jointing kits for Low Voltage applications generally include heat shrink tubes for conductors and for the outer sheath of the cable. The tubes are watertight, have adhesive on their inner surface and their technical features equate the insulation and sheath of the cable. The cable joint prepared, is hence similar to the original structure of the cable. The tubes are mechanically strong and UV-resistant. They are of cross-linked polyolefin and are non-corrosive.

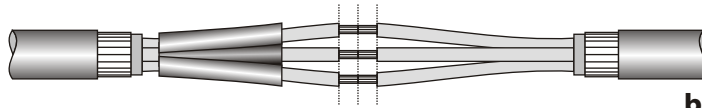
- Reliable and easy to install
- The joints made are slim and compact
- High electrical insulation values
- Complete sealing solution for both PILC and Polymeric cables
- No moisture ingress
- Resistant to abrasion
- Robust design ensures sufficient mechanical protection
- Immediate energization of the line possible
- Suitable for all shape and conductor types
- Installation requires no special skills
- A single kit covers a range of cable sizes
- Kits can be tailored for specific requirements



a

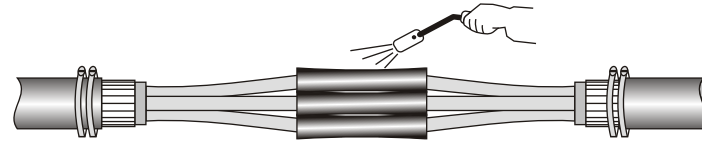
Typical Installation

Cable preparation



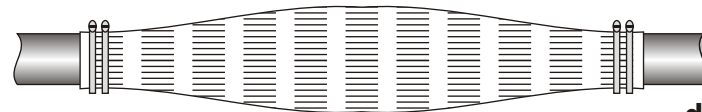
b

Connecting the conductors



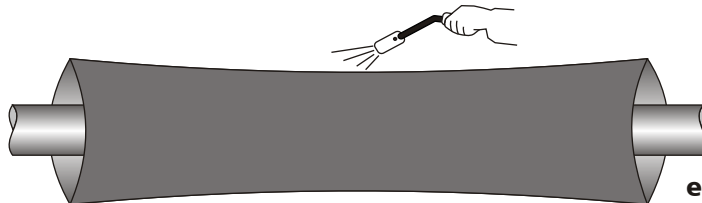
c

Heat shrinking of insulation tubes over connector area



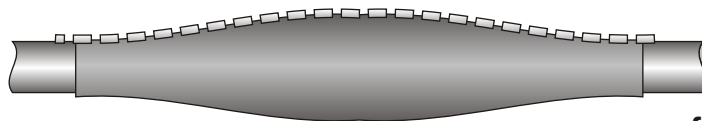
d

Fixing of copper wire mesh and installation of cage



e

Fixation of wrap around sleeve/outer jacket tube



f

Completed Joint

Minimum Performance of M-Seal LT Joints upto 1.1 kV

Tests	Parameters	For PILC-PILC joint	For XLPE-XLPE joint	For PILC-XLPE joint
Insulation resistance	Between phase and earth	≥ 1000 Mega Ohm	≥ 1000 Mega Ohm	≥ 1000 Mega Ohm
Impact	4 kg Wedge dropped 6 times from 2 meter height	No visible damage	No visible damage	No visible damage
AC High Voltage Test	3kV 5 minutes	No breakdown	No breakdown	No breakdown
Load Cycling Test	63 cycles, 5H heating, 3H cooling with cond. temp. as per cable specification	No breakdown or flashover	No breakdown or flashover	No breakdown or flashover
DC Withstand Test	3kV 5 minutes	No breakdown or flashover	No breakdown or flashover	No breakdown or flashover

Important Notice

Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use.

Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture at the time of purchase. **3M MAKES NO OTHER WARRANTIES**



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