

## STRAIGHT JOINT INSTRUCTIONS

Filoforms cast resin joints correspond to BS EN 50 393. All parts have to be dry and free from oil and grease before pouring the cast resin. At temperatures below +10°C the mixing bag must be pre-warmed to +15°C. Voltage may be switched on immediately after pouring the resin.

- 1.1 Place bottom half of shell casing against the uncut cable and use this as the basis for your stripping dimensions (see table below)

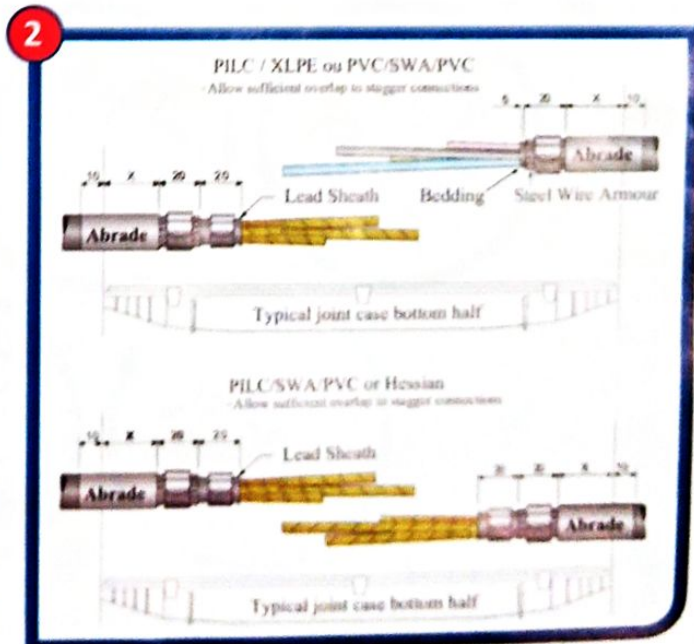
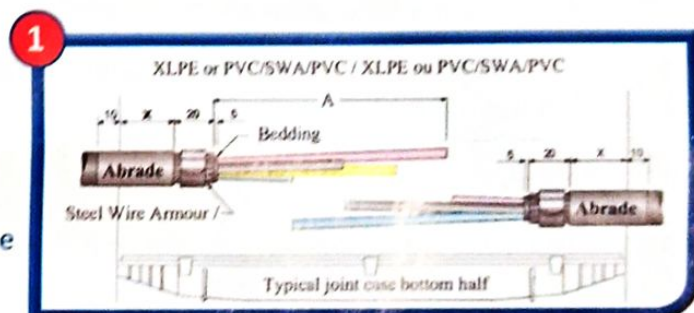
Cable Size mm <sup>2</sup>	Dimension X
1.5 - 25	25
35 - 120	35
150 - 400	40

Clean and remove excess oil/moisture from cable sheath.

These instructions are meant only as a guide, and only competent persons should attempt any form of cable cutting or jointing.

Straight and Branch Joints may be used on uncut cables by utilising appropriate connectors and following connector manufacturers instructions for re-insulation.

- 1.2 For PVC or XLPE/SWA/PVC cables, follow dimensions on diagram 1.
- 1.3 For PILC/SWA/PVC in transition or to itself, follow dimensions on diagram 2
- 1.4 Remove outer sheath and armour wires in accordance with dimension A. Allow for blocked connector, if necessary. Always use a blocked connector for transition between XLPE and PILC cables.
- 1.5 Remove inner sheath from point of bedding cut to expose internal insulated cores. Allow sufficient length on each core to stagger the connectors within the length of shell. Avoid bunching of conductors where possible. Seal crutch of the cable with self-amalgamating tape. **This is most important when jointing PILC to PILC or PILC to XLPE cables.**
- 1.6 Remove the insulation from the end of each core, and fit connectors into position, allowing for staggering as above.
- 1.7 Over-wrap the connectors with 4 half-lapped layers of self-amalgamating tape, beginning and ending on the primary insulation, taking note to fill any gap between the insulation and connector.





# FILO form

connect ▶ seal ▶ protect ▶

**1.8** Lay the insulated braid across the joint. Expose the ends of the braid and attach to the armour wires using the constant force springs. (See diagram 4) Fold either end of the braid back on itself and cut off any excess. (See diagram 3).

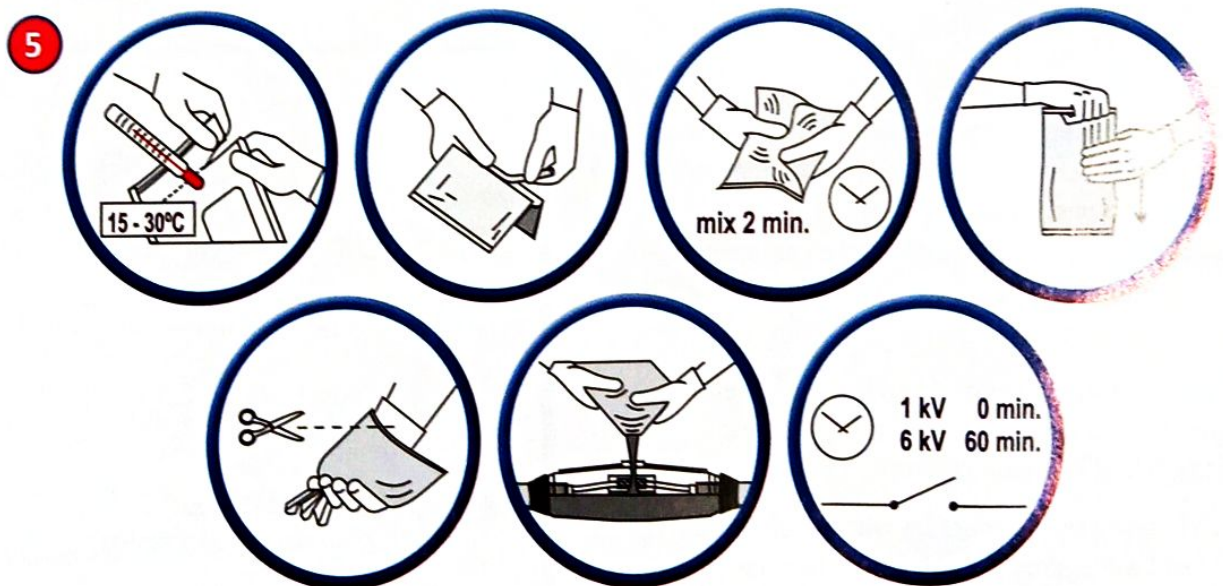
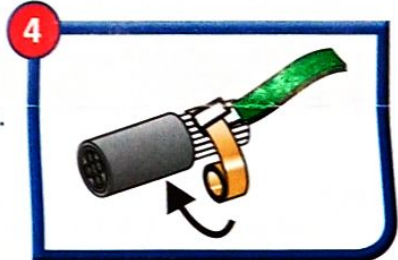
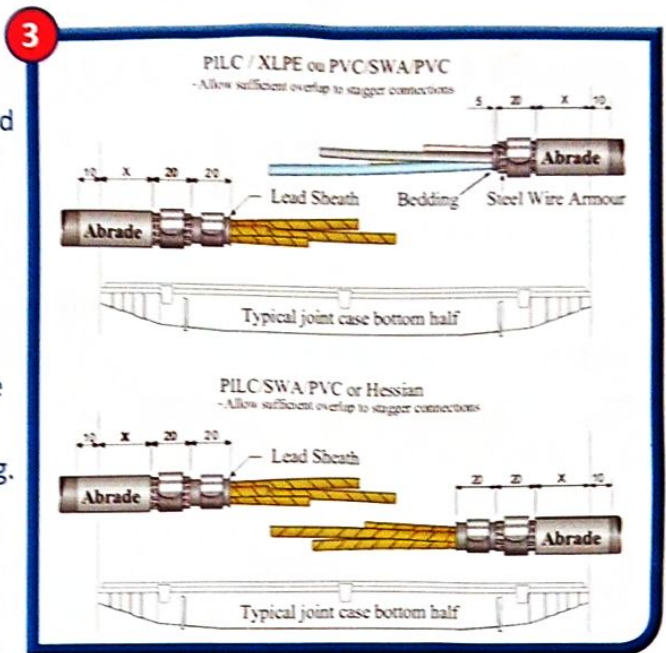
Use additional Constant Force Springs to secure the exposed braid to the lead on any PILC cables and continue to follow the taping instructions in 1.9.

**1.9** Apply 2 half-lapped layers of self-amalgamating tape across the constant force spring, beginning at the sheath cut and continuing onto the exposed bedding. Wrap in the same direction as the constant force spring was applied.

**1.10** Abrade the outer cable sheath as per dimension X on diagram 1, ensuring any exposed sheath that sits inside the shell is fully abraded.

**1.11** Place the lower mould around the joint and position centrally. Cut the shell ends to suit the cable diameter and repeat this for the top section. Clip the halves together, tape the shell ends onto the cable sheath using the PVC tape. Ensure the shell is fully sealed and stable.

**1.12** Use the gloves provided and mix and pour the resin as per diagram 5, taking care not to move the cable cores.



**1.13** For joints up to 1000v, joint can be filled under load conditions. The joint should be left for 2 hours before back-filling to allow resin curing process to begin.