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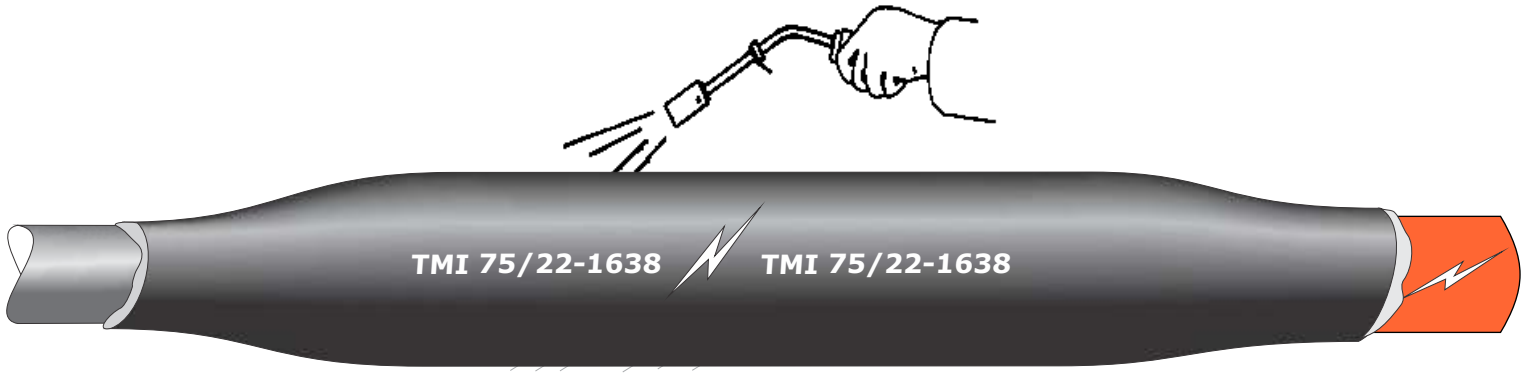
Shrink Polymer Systems

Cable Installation Materials – 24 volts to 36 kV

INSTALLATION INSTRUCTION
HEATSHRINK LIVE POT END KITS TO SUIT 6.35/11(12kV) SINGLE CORE XLPE/CWS/PVC CABLE



- THESE INSTRUCTIONS SHOULD BE FOLLOWED BY A TRAINED COMPETENT JOINTER
- A PROPANE GAS TORCH IS THE PREFERRED METHOD FOR SHRINKING THESE MATERIALS
- ENSURE THAT THE MATERIALS ARE KEPT CLEAN AND DRY AND ARE FREE FROM DUST, SAND AND GREASE
- PLEASE CALL SHRINK POLYMER SYSTEMS FOR ANY ADVICE

DATE OF ISSUE: 01.04.14

ALL DIMENSIONS SHOWN IN mm

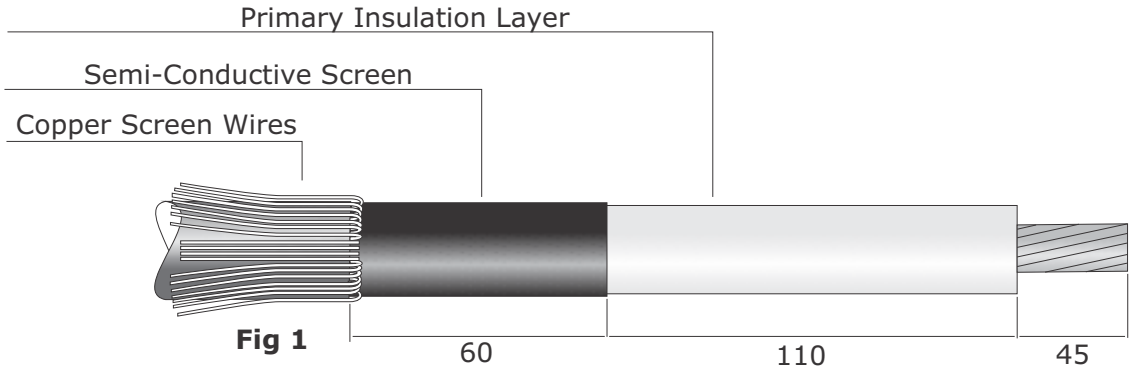


Fig 1

1. Prepare the cable to the dimensions shown in Fig 1.

2. Carefully remove the semi-conductive screen layer with an approved tool. **Note:-** advice on screen removal and videos are available on our website.

3. Thoroughly clean the primary insulation using the cleaning tissues provided or suitable cleaning fluid. Ensure no conductive material remains on the core insulation.

Fig 2

4. Position the nylon insulating rod so that the prepared conductor inserts carefully into the drilled end as shown in Fig 2. **Important:-** if conductor will not enter the insulating rod and is too tight, user should compact conductor before inserting so as not to scrape away the inner metallic screened coating. If too loose, apply a turn of the supplied semi-conductive tape to the conductor before insertion.

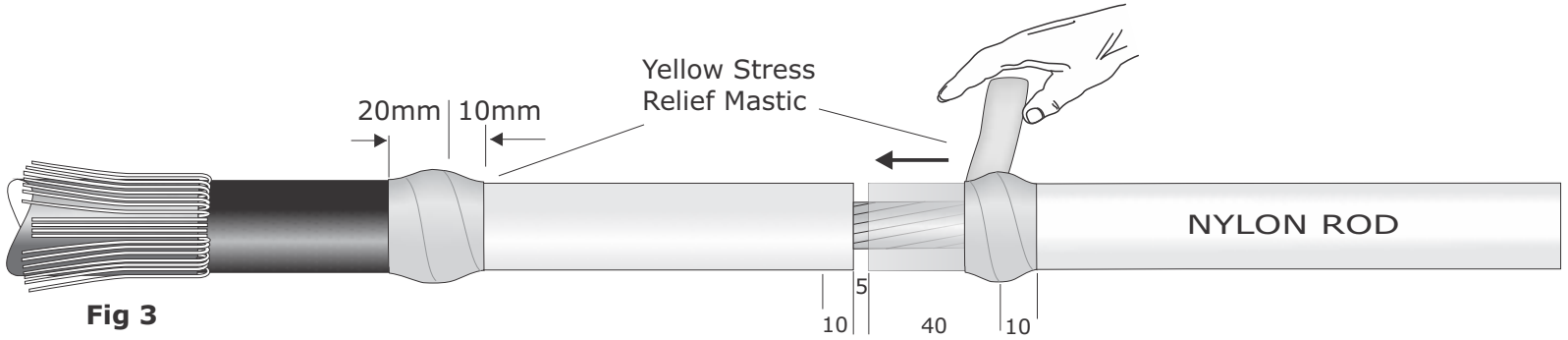


Fig 3

5. Stretch the yellow stress relief tape and apply with half width overlap around the conductive screen edge on the cable core for a distance of 10mm onto the primary insulation and 20mm onto the semi-conductive screen. Wrap the remaining length of yellow tape at a point 10mm past the screen point on the nylon insulating rod and extend the tape over the entire screened area extending onto the primary insulation of the xlpe core by 10mm as shown in Fig 3 above. Apply the yellow tape to fill in the gap between the conductor and the nylon rod and ensure a smooth taper if cable and nylon rod diameter differ.

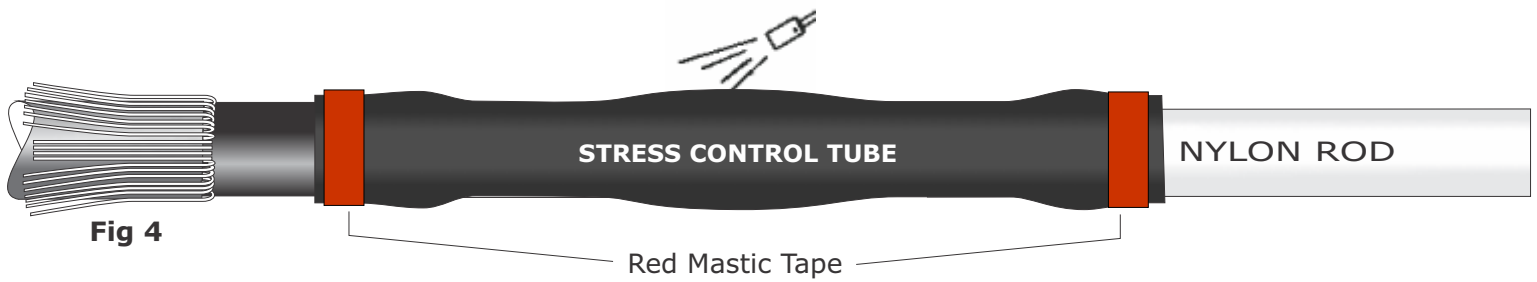


Fig 4

6. Position the stress control tube so that it covers both screen points equally. With a suitable heat source, shrink in an even manner starting at the centre to one end at a time. **Note:-** It may be necessary to hold the rod in position whilst shrinking takes place.

7. Allow the stress control tube to cool a little before cleaning tube with the tissues provided. This cleaning action has shown to improve electrical performance.

8. Apply a turn of red mastic sealant tape around the ends of the stress control tubes as shown in Fig 4.

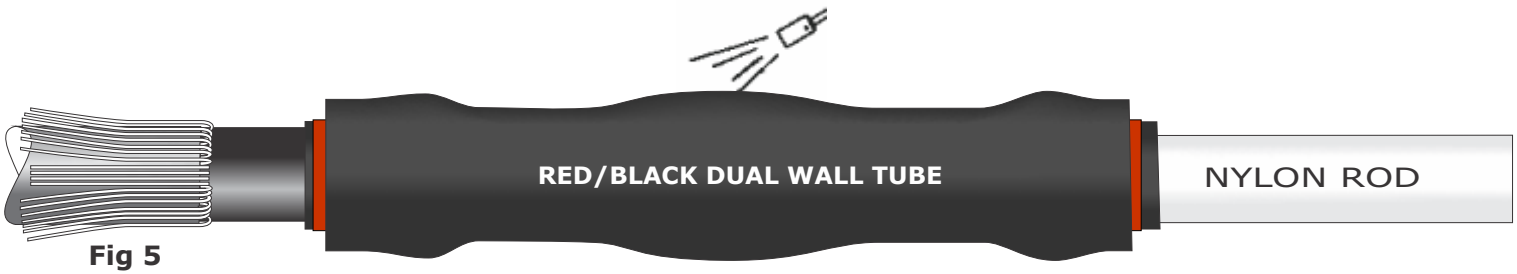


Fig 5

9. Finally position the red/black dual wall insulation/conductive tube centrally over the previously applied stress control tube. Again shrink from the centre to one end at a time. Apply heat evenly all around the tube to ensure an even wall thickness.

Note:- This tube is intentionally a little shorter than the previously applied tube.

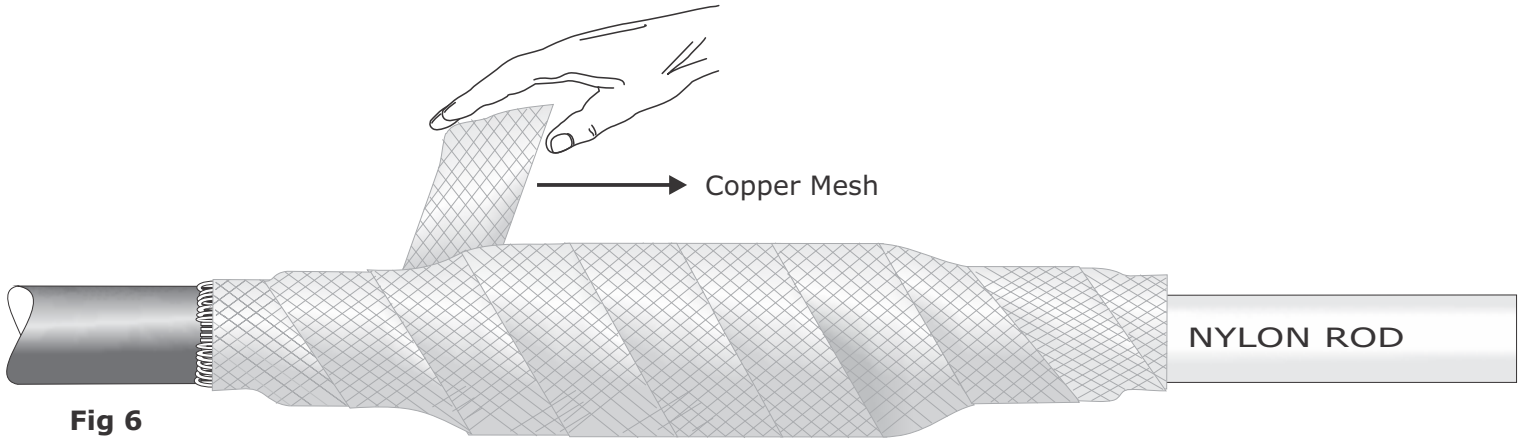


Fig 6

10. Apply the tinned copper mesh around the insulating rod and extend over the red/black connector insulation tube. Bend back the copper screen wires and secure them to the copper mesh and apply a further layer of mesh over the joint and screen wires as shown above in Fig 6.

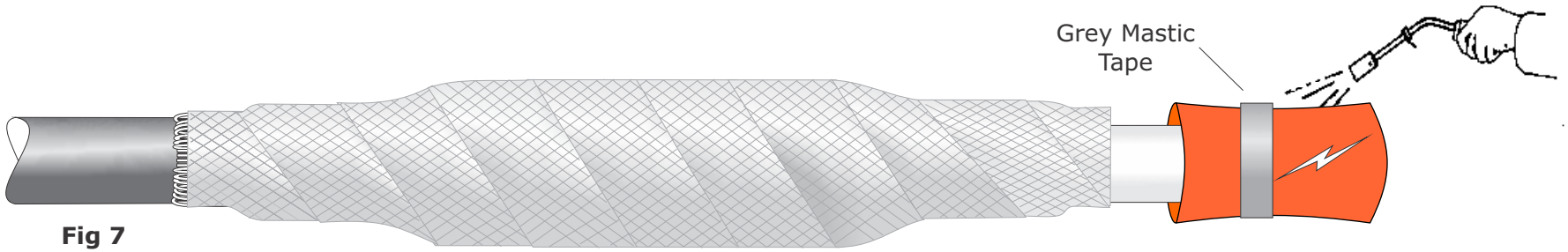


Fig 7

11. Position the heatshrink end cap over the end of the nylon rod as shown above in Fig 7 and shrink into position. User may need to use some sort of pushing tool to keep the cap in position whilst shrinking.

12. Apply a piece of grey mastic tape around the end cap body so that the outer shrink tube covers it when fitted. This helps to create an improved moisture seal when the outer shrink tube is fitted.

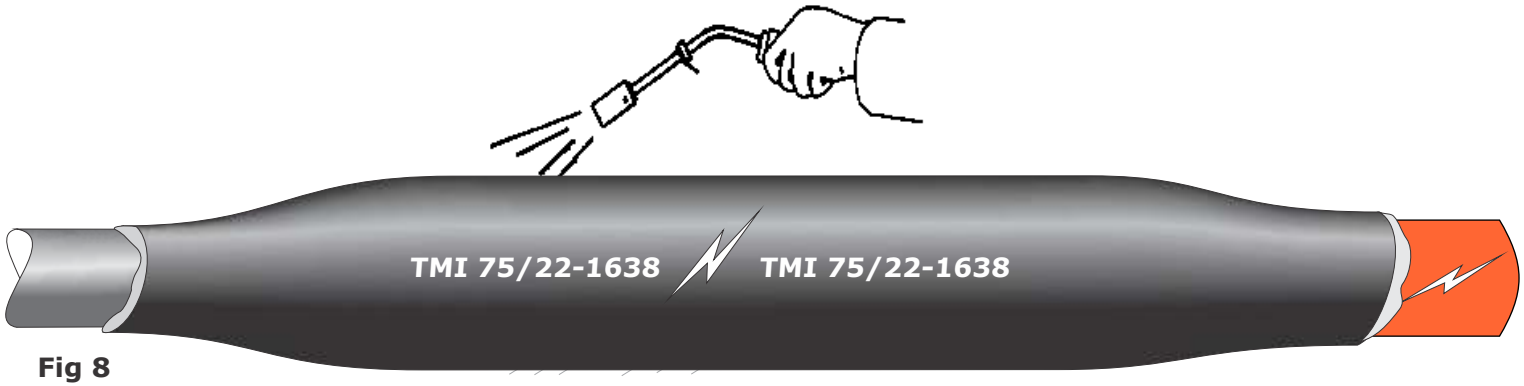


Fig 8

13. Abrade the outer cable sheath for approximately 100mm and clean before position the outer shrink tube centrally over the finished pot end kit so that it overlaps onto the end cap and cable sheath equally. Shrink from the centre of the tube to one end at a time. Keep the flame moving all around the tube so that an even wall thickness is obtained.Sealant should be visible at the tube end's once fully recovered.

14. Allow to cool before applying any mechanical strain.

Important: user/circuit designer should determine whether or not special earthing requirements are needed to reduce the possible effects of induced sheath voltages or circulating currents in single core cables. The decision to single point earth/solid point earth or install cross bonding kits needs to be considered once length of run, loading and positioning of cables is known.