

Removal of Water Blocking Tapes or Yarn

This Technical Bulletin clarifies the necessity in the removal of the water blocking material in Medium Voltage and High Voltage XLPE cables during jointing.

CBI–electric: African cables produces its water blocked Medium Voltage XLPE cables with the application of water blocking yarn. This method of water blocking has the benefit of not hindering the radial conductivity of electrons within the connectors of joints, as well as resulting in no abnormal temperature rise in the connectors, which is especially a concern for conductor's water blocked with tapes, of sizes 185mm² and larger, if the tapes are not removed by skilled jointers. The yarn does not need to be removed during jointing, and there is therefore no need for special skilled jointers.

For water blocking the conductors of High Voltage XLPE cables, CBI–electric: African cables have found that it is effective to use water swellable tape applied longitudinally under each layer of aluminium or copper wire during the stranding process. In the case of segmented Milliken conductors, water swellable segment separator tapes are applied longitudinally between the individual sectors. These water swellable tapes need to be removed by skilled jointers to avoid the risk of increased temperature in the joints, as well as to prevent the risk of damage and deformation of the conductor.

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