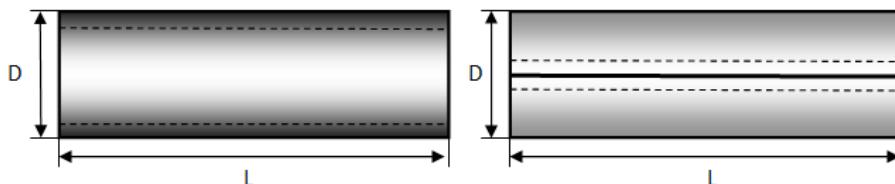


## PRODUCT SPECIFICATION

# HEAT-SHRINKABLE TUBES

Heat-shrinkable tube for district heating is used to play the outer coating for pre-insulated pipe joints. Tube with PUR foam slates make up a set for pre-insulated pipe joint used in situations where it is more comfortable to perform dry joint, without filling the joint with liquid polyurethane foam components.

Joint assembly by using the tubes means filling the space of joint with slates and putting the tube so that the ends overlap the ends of the coating pipe. Then you shrink the tube on the full length. Tube has no filling holes. Tube is also available in versions of crosslinked or non-crosslinked material.



### Properties of tubes:

- ✓ Very strong type of HDPE material selected by Termogum for the production of tubes in order to increase the strength of pipe joints and ensure the long life of the heating network;
- ✓ Innovative, easy to install and reliable tubes are compatible with all standard outer coating pipes made according to the standard EN-253;
- ✓ All tubes meet the requirements of soil stress tests and water impermeability test according to EN-489;
- ✓ Shape memory of crosslinked polyethylene and tube's pressing downforce against the pipe coating creates a tight and durable outer coating of pipe joint;
- ✓ Crosslinked material provides high mechanical strength and resistance to tearing and abrasion;

- ✓ Flexible material and patented production method of tubes ensure the tensile strength and resistance to temperature changes associated with changes in transmission factors;
- ✓ The ends of the tubes have extra 100 mm insulation layer of innovative adhesive that permanently binds, sticks and seals the joints;
- ✓ The ends of the tubes are finished in the shape of the convex part of the curve, which is very beneficial for joint sealing by reducing the forces acting on the tube during its operation in the ground;
- ✓ The shape of the tube has been adapted to the harsh conditions of ground, so as to minimize the forces acting on the tubes installed under the ground;
- ✓ Application of Termogum tube does not require the installation of ties, collars or tapes on the ends of the tube, as the single tube provides strong sealing thanks to the pressing downforce against the coating pipe, a very robust material and the appropriate shape of the ends of the tube;
- ✓ Tube is also available in a version without hot melt adhesive or with it and mastic.

| Tube type        |                      | Diameter of pre-insulated casing pipe (mm) |
|------------------|----------------------|--|
| Crosslinked tube | Non-crosslinked tube |  |
| <b>TNS-90</b>    | <b>TN-90</b>         | 90   |
| <b>TNS-110</b>   | <b>TN-110</b>        | 110  |
| <b>TNS-125</b>   | <b>TN-125</b>        | 125  |
| <b>TNS-140</b>   | <b>TN-140</b>        | 140  |
| <b>TNS-160</b>   | <b>TN-160</b>        | 160  |
| <b>TNS-200</b>   | <b>TN-200</b>        | 200  |
| <b>TNS-225</b>   | <b>TN-225</b>        | 225  |
| <b>TNS-250</b>   | <b>TN-250</b>        | 250  |
| <b>TNS-315</b>   | <b>TN-315</b>        | 315  |
| <b>TNS-400</b>   | <b>TN-400</b>        | 400  |

The quality of the hot-melt adhesive means high peel strength while maintaining flexibility of the joint. Termogum developed innovative adhesive formula which allows the adhesive to obtain a very high quality properties.