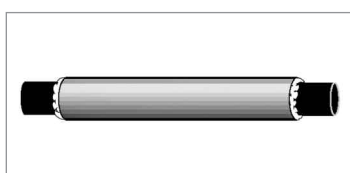
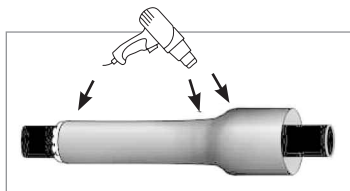
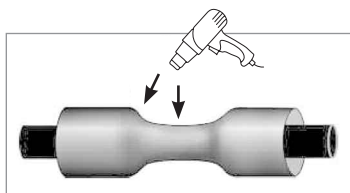


The installation of heat shrink products by KACAB is quick and easy. In order to reach maximum satisfaction from the heat shrink products it is suggested to follow the instructions below.

**Tools**

The heat shrink products should be shrunk with hot-air blowers (thin wall), gas heating torches (medium/heavy wall) and other equipment able to reach the temperature of over +120°C.

**Installation of heat shrink tubes thin wall, medium wall and thick wall**



**Prepare the surface of the object on which the heat shrink tube will be installed**

1. Un-dust and degrease the surface of the object, e.g. with a non-oil solvent.
2. The PVC cable surface should be ground with a piece of abrasive cloth and heated up.
3. Metal surfaces should be polished with abrasive cloth and heated up.

**Prepare the heat shrink tube**

1. Choose the tube with the required insulation parameters and diameter (the diameter of the recovered heat shrink tube should be smaller than the circumference of the object).

**Shrinking**

1. Slide the heat shrink tube.
2. Set the temperature of the hot-air blower to the appropriate level for the material and wall-thickness of the Heat Shrink Tubing. Different materials have different minimum shrinking temperatures (+65°C up to 360°C) . Higher temperatures can speed up the shrinking process. The hot-air blower should always be in constant movement (around the tube and out to the sides), be careful not to heat constant at one spot as this could cause local overheating of the material.
3. Start the shrinking process from the middle of the tube with constant round movements around the tube to achieve steady shrink. The middle part of the tube should shrink down and stick closely to the object.
4. Shrink the ends of the tube with constant movements from the middle towards the ends. The properly shrunk tube should be smooth, with no bulges and notches.
5. If the installed tube is a double layer tube - with adhesive - the adhesive should flow out at the ends of the heat shrink tube.
6. Leave the shrunk tube to cool down.

**Installation of heat shrink tube of large diameter on posts (renovation)**

**Prepare the post**

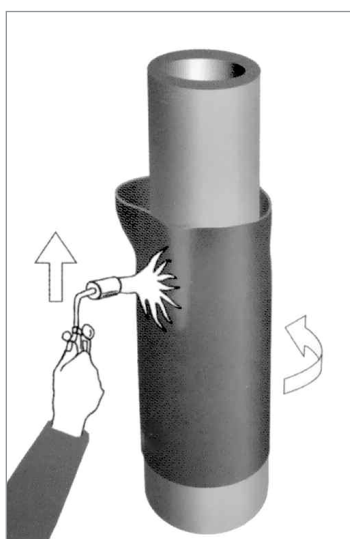
1. Dismantle all the post's elements, e.g. lighting elements, for better heat shrink tube set up.
2. Clean and apply the ground coating on the bare part of the post.

**Prepare the heat shrink tube**

1. Choose the heat shrink tube with the required parameters and diameter.

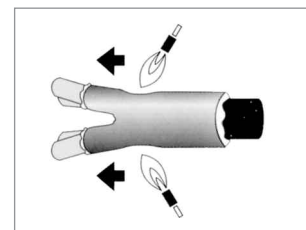
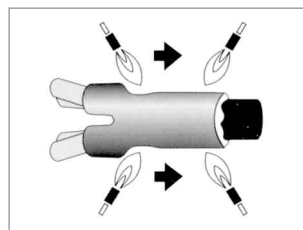
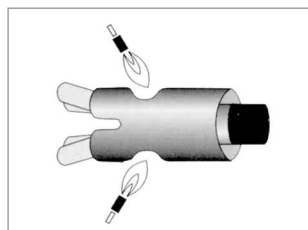
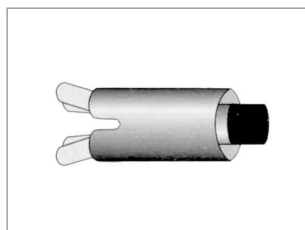
**Shrinking**

1. Slide the heat shrink tube.
2. Set the temperature of the hot-air blower to the appropriate level for the material and wall-thickness of the Heat Shrink Tubing. Different materials have different minimum shrinking temperatures (+65°C up to 360°C) . Higher temperatures can speed up the shrinking process. The hot-air blower should always be in constant movement (around the tube and out to the sides), be careful not to heat constant at one spot as this could cause local overheating of the material.
3. Start the shrinking process from the bottom of the tube with constant round movements around the tube to achieve steady shrink. The bottom part of the tube should shrink down and stick closely to the object.
4. Shrink the other part of the tube with constant movements from the bottom up. The properly shrunk tube should be smooth, with no bulges and notches.
5. If the installed tube is a double layer tube - with adhesive - the adhesive should flow out at the ends of the heat shrink tube.
6. Leave the shrunk tube to cool down.

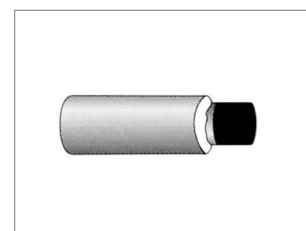
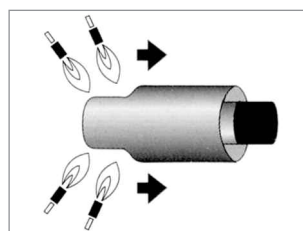
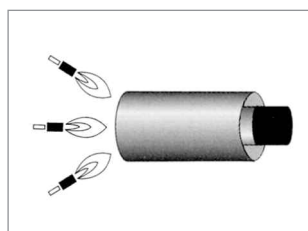
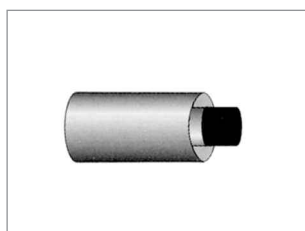


**Installation of heat shrink breakout boots**

Installation steps are similar to the installation of thin wall, medium wall and thick wall heat shrink tubes.

**Installation of heat shrink end caps**

Start the heating of the heat shrink end cap from the top of it towards the end. Keep the continuous movements of the heat torch or blower to gain a steady shrink. After proper installation the adhesive should flow out at the end of the end cap.

**Technical details and operational properties of heat shrink tubes****Material**

Most of the heat shrink tubes by KACAB are made of polyolefin (e.g. polyethylene) radiation crosslinked. They excellent insulate and seal also play roles of protective layers, anti-corroding shields and decorative elements.

Used as a part of the final product they increase its technical level.

The heat shrink tubes protect against changing weather conditions and aggressive underground factors.

They make perfect protection against moisture.

They adopt the shape of the object on which they are shrink and improve its mechanical protection.

Have very high shrink strength and unlimited storage time.

They don't undergo fatigue corrosion and are resistant to UV radiation, fungus, mould and other

corrosive agents; urine, salts, majority of oils, petrol, alcohols and grease. The black tubes are UV radiation resistant. They perform a cathodic protection function, involving the shift of the potential of the protected object (steel pipe) towards more negative potentials.

**Colours**

Consult some tables for available colours of heat shrink tubes.

The non-standard colours are produced on request.

Heat shrink tubes of large diameters have black colour.

**Lengths**

Standard length of medium- and heavy wall is 1,22 m

Thin wall tubes - possibility on request of cutting into various length e.g. 2 cm, 20 cm etc. or producing on spools.

Medium, thick wall tubes and tubes of large dimensions to the size of 350/100 - possibility on request manufacturing longer than 1,22 m.

The cutting of the tubes according to a demanding length must be done with a sharp tool, and the front surface of the cut part should be equal, smooth, without burrs, etc.

On special demand, we make tubes of different diameters and insulation properties.

We guarantee short realisations of non-standard products' orders.

**Shrink temperature**

Minimum shrink temperature is between + 65°C to + 360°C depending on material of the tubing

Pay attention for overheating the tube.

**Storage**

Heat shrink products should be protected against direct sunray and stored in closed warehouses in temperatures between -10°C to +35°C.

*We certify that the values provided are as accurate as possible. Use of these values, however, remains the sole responsibility of the customer and cannot in any way substitute for testing the product under real conditions of use. The user must assess whether this product is suitable for a particular use. KACAB shall not be held responsible for any loss or anomaly resulting from the correct or incorrect use of this product.*