General application instructions

Working with Tubolit

• Use high-quality tools, such as those supplied in the Armacell Toolbox, and only the Armacell adhesive systems and cleaner. (For adhesives, please check the filling date!)

• Both the Tubolit material and the pipes and components to be insulated must be free of dirt, oil or dust. If necessary, remove any contamination using the Armaflex cleaner.

• Tubolit must always be installed under compression to avoid longitudinal shrinkage. It is therefore necessary to add 2 – 3 % to the length.

• To ensure good adhesion, temperatures must not be below +5 °C when working with Tubolit and the adhesive. The 520 Adhesive must be stirred before use. Apply the adhesive to both surfaces and allow to tack dry. The time required will depend on how thickly the adhesive is applied, and also on the ambient temperature and wind conditions. After the tack-drying time, close the seam pressing the edges together firmly.

• Only use self-adhesive tubes at ambient temperatures of +10 to +35 °C. The two release papers must be pulled back gradually. Press the edges together firmly to close the seam.

• Never insulate pipes which are in operation. After gluing wait 36 hours before re-starting equipment.

• After the seams of Tubolit DG and Tubolit S insulation materials have been glued, we recommend additionally securing them with Tubolit clips. It is absolutely essential that these clips are used in any areas where there is tension.

• Apply Armaflex adhesive in a thin even coat to the surfaces to be bonded. Allow the adhesive to tack dry! The minimum tack-drying time depends on the ambient conditions. Contact adhesives develop their maximum adhesive force when they are still slightly tacky when tested with a fingernail. They must not be stringy! Press the surfaces together carefully and with
sufficient pressure, working from the inside to the outside. Where possible avoid placing longitudinal seams on the top side of the insulation.

**Tools**

<table>
<thead>
<tr>
<th>Tool</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Folding rule / tape measure</td>
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<tr>
<td>Silver ink marker pen</td>
<td>Brushes with short, firm bristles</td>
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<tr>
<td>Sharp knife</td>
<td>Sharpened pipe ends for the most common pipe diameters</td>
</tr>
<tr>
<td>Sharpening stone</td>
<td>Gluemaster</td>
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<tr>
<td>Mitre box</td>
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</table>
Insulating during pipe installation

Tubolit can simply be sleeved over straight sections of pipe and pipe bends.

After the tube has been positioned correctly, the butt joints are bonded with Armaflex adhesive.
Insulating after pipe installation

Use a sharp knife to slit the Tubolit tubes lengthwise.

Fitting covers for insulating pipe bends can be fabricated quickly and easily using the template or a mitre box.

Place the Tubolit tube around the pipe and apply adhesive to both edges of the seam. Allow the adhesive to tack dry. Once it is no longer stringy when tested with a fingernail, press the seams together firmly.

Use Tubolit clips to secure the seam (6 clips per metre).
INSULATING PIPE BENDS

Simple pipe bend

Depending on the circumference, diameter and radius, the Tubolit tube material needs to be cut at various angles when fabricating fitting covers. The Armaflex template can be used to facilitate the fabrication of these covers.

1. Place the Armaflex template with the printed side up on a table or workbench.

2. Align a Tubolit tube across the template parallel to the horizontal base line.

3. Select the required angle from the template and cut along this line. Make sure that the tube doesn’t slip. Glue the pieces of the fitting cover together.

Slit the throat of the fitting cover and glue with Armaflex adhesive.
Pipe bend with mitre box

To insulate drawn pipes with a larger radius, use a mitre box and follow the segment method.

It has proven practical to cut notches.

After fabricating a fitting cover for the segment bend, glue all seams.

Glue the fitting cover to the adjoining insulation as described above.
**T-PIECES**

To insulate branch pipes, slit the Tubolit tube and punch a hole using a sharpened section of pipe with the correct diameter.

Cut a semi-circular recess in the Tubolit tube for the branch section to ensure a perfect fit.
Glue the Tubolit tube pieces together to insulate the T-piece.

INSULATING VALVES

When insulating valves, use a sharpened section of pipe to punch out a hole with the same diameter as the spindle.

Use Tubolit clips to provide the glued longitudinal seam with added security.
INSULATING SIMPLE PIPE CLAMPS

In the area of pipe brackets, install the Tubolit tubes up to the pipe clamp. On the pipe clamp itself a Tubolit tube with an inner diameter equal to the outer diameter of the adjoining Tubolit insulation material must be used. (Attention: Make sure the insulation thickness is maintained in the area of the overlap!)
Slit the Tubolit AR tube lengthwise, place the open sleeve around the pipe and secure all seams with self-adhesive AR Tape.

Use tape to secure the butt joints of the insulation.
INSULATION OF ELBOWS AND JOINTS

Insulate the pipe up to the bend / branch pipe. Wrap Tubolit AR Tape around the bend / branch allowing it to overlap slightly.
INSULATION OF CLAMPS

The area around clamps must also be insulated with tape to avoid acoustic bridging.

If possible open the clamp and insulate the pipe at the subject point of the clamp with Tubolit AR.

Then close the clamp and wrap the clamp itself with a stripe of Tubolit AR or AR Tape, prepared with cut-out holes for the clamp screwing.

Secure all seams with AR Tape.

If it is not possible to open the clamp, wrap and secure AR Tape around the pipe to both sides of the clamp. In a second step, wrap the clamp itself with a strip of Tubolit AR or AR Tape (see above).
INSULATING VISIBLE WASTEWATER PIPES

Simplified segment bend

Measure the length of the bend along the outside of the bend. Use this measurement to cut a piece of tube material, slit this open and divide it into three equal parts.

Transfer the measurements determined to the slit Tubolit AR tube.

Then assemble the segments and secure the seams with self-adhesive tape.
Pipe branches

A more attractive result is achieved if mitred cuts are used when fabricating fitting covers with Tubolit AR tubes.

For angled T-pieces cut the Tubolit AR tube according to the shape.
STRAIGHT CONNECTION (90°)

Determine the heights a and b

Divide the slit Tubolit AR tube into 4 equal parts and transfer the heights a and b to the material.

Assemble the fitting cover for the 90° connection and secure the seams with self-adhesive tape.
INSTALLATION VIDEOS FOR KEY APPLICATIONS

The application guide is supplemented by short video clips presenting the key installation techniques. They are organized in the same way as the application manual and can be used either together with this or on their own. The clips were deliberately produced without explanatory texts to avoid language barriers and allow them to be used around the world.

The application videos and other clips from Armacell can be found at www.armacell.eu and on the Armacell channel on the YouTube platform. Mobile devices such as tablet PCs and smartphones allow installers to check directly on the building site if uncertainties arise.
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