KNOW-HOW

Installation of ArmaFlex® on bends

No other insulation material can be installed as easily and neatly as the highly flexible ArmaFlex products. Fitting covers for bends can be cut out of ArmaFlex tube material and glued to the adjoining insulation quickly and effortlessly.

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Compression in the throat of the bend can lead to a reduction in the insulation thickness and this in turn to condensation on the surface of the insulation material. If in doubt, it is best to fabricate fitting covers for bends.

STAY AHEAD OF THE CURVE WITH ARMAFLEX

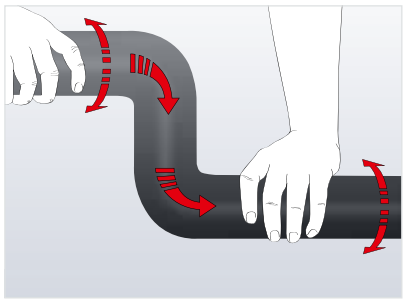
No other insulation material can be installed as easily and neatly as the highly flexible ArmaFlex products. The elastomeric insulation tubes can simply be sleeved over new pipes. When insulating existing pipework, the tubes are slit and laid around the pipes, then the seam is glued with ArmaFlex adhesive.

On elbows, too, the ArmaFlex tubes can usually simply be sleeved over the pipes. However, on tighter bends there is a risk of the insulation kinking in the throat of the bend, resulting in a reduction of the insulation thickness here. In cold applications this compression can lead to condensation on the surface of the insulation material. Fitting covers for bends can be cut out of ArmaFlex tube material and glued to the adjoining insulation quickly and effortlessly.

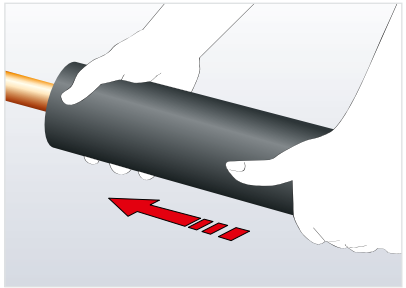
"If there is a risk of the insulation material kinking and the glued seam being compressed, segment bends must be fabricated."

INSULATING BENDS: THE APPLICATION TECHNIQUES

1. SLEEVING OVER ArmaFlex TUBES
Pipes can be insulated simply by sleeving over ArmaFlex tubes. This application technique can also be used on bends. The tubes must be clean and dry and should slide smoothly back and forth when they are sleeved over.



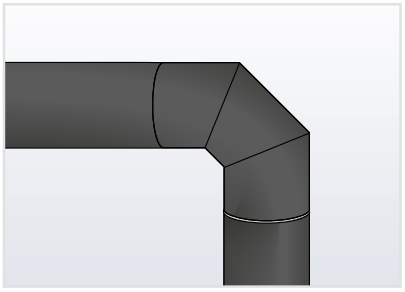
"Push, don't pull! If you try to pull the ArmaFlex tube along the pipe, the insulation may tear. Instead you should always push the tube over the pipe."



2. FABRICATING SEGMENT BENDS
If there is a risk of the insulation material kinking in the throat of the bend it is imperative that fitting covers are fabricated. Kinking of the insulation material in the throat of bends results in a reduction of the insulation thickness in this area.

In air-conditioning and refrigeration applications condensation can occur on the surface of the insulation. If tubes with a self-adhesive seal are installed, there is the additional risk of the adhesive being compressed in the area of the bend and the seam then coming apart.

"Always insulate bends with standard tubes! Don't use self-adhesive tubes for this purpose!"



Segment bend with one middle part
Bends made of ArmaFlex are usually fabricated as segment bends with one middle part. Two or three middle parts are only necessary for very large, obtuse bends.

Note: The yellow lines indicate where cuts are to be made. For exact angles please use the ArmaFlex template.

Instructions for fabricating other bends out of tube and sheet material can be found in the ArmaFlex Application Manual.

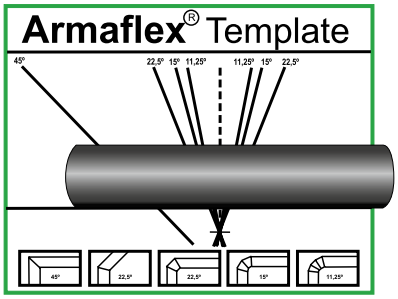
NEW!

AF/ARMAFLEX FITTING COVERS
Installing ArmaFlex insulation is now getting even simpler and faster. Turn to prefabricated elbows and T-pieces from Armacell.

// Significant time and cost savings
// Consistent quality and higher performance
// Less material loss due to cutting errors

GENERAL ADVICE ON THE INSTALLATION OF ARMAFLEX

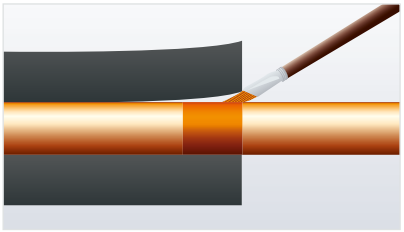
Using the ArmaFlex template
When fabricating fitting covers, the pieces of tube need to be cut at various angles depending on the circumference, diameter and radius. To help installers, an ArmaFlex template is printed on each ArmaFlex box.



1. Place the ArmaFlex template with the printed side up on a table or workbench.
2. Align an ArmaFlex tube across the template parallel to the horizontal base line.
3. Select the required angle from the template and cut along this line.

Note: It is important to use high-quality tools, especially sharp knives. Take particular care when cutting out the pieces.

The correct gluing technique
1. Apply ArmaFlex adhesive in a thin, even coat to the two surfaces to be bonded.
2. Allow the adhesive to tack dry! The minimum tack-drying time depends on the ambient conditions.
3. Contact adhesives develop their maximum adhesive force when they are still slightly tacky when tested with a fingernail, but they must not be stringy!
4. Press the surfaces together carefully and with sufficient pressure, working from the inside to the outside.
5. Do not use the wet-bonding technique when gluing butt joints "under compression".
6. Secure the ends of the tubes to the pipe surface by applying adhesive to the entire circumference in a width at least equal to the insulation thickness.



Note: Always use ArmaFlex adhesive and cleaner. Never glue seams under tension, always under compression.

The fabrication of segment bends is demonstrated very clearly in an ArmaFlex application video. All Armacell videos can be found at armacell.de and on our YouTube Channel.

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As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With 3,135 employees and 24 production plants in 16 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology. For more information, please visit www.armacell.com

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