

application manual
Armaflex[®]

ARMAFLEX PRODUCTS**Class O Armaflex**

Flexible, closed cell, CFC-free (ozone depletion potential of zero), elastomeric material for the insulation of pipework, ducting and vessels with superior fire performance. It has a low thermal conductivity and very high resistance to water vapour transmission. Widely used for condensation control and energy saving.

Class O Armaflex Alu

Flexible, closed cell, CFC-free (ozone depletion potential of zero), elastomeric material with Aluminium Foil facing for the insulation of ducting and vessels with superior fire performance. It has a low thermal conductivity and very high resistance to water vapour transmission. Widely used for condensation control and energy saving of ducting in HVAC, especially for Pharma & Clean Room Application.

Class O Armaflex Plus

Flexible, closed cell, CFC-free (ozone depletion potential of zero), elastomeric material with Microban® antimicrobial protection for the insulation of ducting with superior fire performance. It has a very low thermal conductivity and very high resistance to water vapour transmission. Widely used for condensation control and energy saving ducting in HVAC, especially for Pharma, Hospitals & commercial buildings where IAQ is a big concern.

HT Armaflex

Flexible, closed cell, CFC-free and PVC-free (ozone depletion potential of zero), elastomeric material specially developed for higher temperature applications.

Armaflex Self Adhesive Tape

A Self adhesive tape which may be used for insulating difficult shapes or areas not easily accessible. Available as Class O Armaflex and Class O Armaflex Plus.

Arma-Chek System

Armaflex with a reinforced coating system. Combines the benefits of Armaflex thermal insulation with a tough, durable, light-weight, vapour-resistant covering for resistance to UV and mechanical damage.

Armaflex Accessories**Armaflex 520**

Armaflex 520 adhesive is based on modified chloroprene rubber in a blend of flammable solvents. The material has low viscosity for ease of application and quick drying characteristics. It is particularly suitable for joining Armaflex flexible elastomeric insulation and for bonding the material to clean prepared surfaces. When properly cured the adhesive bond maintains the very high resistance to water vapour of Armaflex.

Armaflex 625

HT Armaflex 625 is a contact adhesive based on polychloroprene, free of aromatic components. It is a special adhesive for treatment of HT Armaflex. Application on pipes and tanks up to +150 °C. HT Armaflex 625 adhesive is one component adhesive which has been developed to bond Armaflex insulation applied on high temperature, especially well matched with HT/Armaflex material. It guarantees a homogeneous and safe bonding at joints and seams.



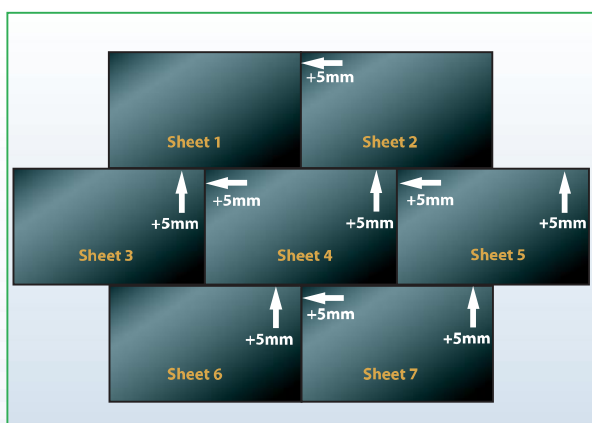
INSULATING VESSELS AND TANKS WITH ARMAFLEX SHEET

Draw up a cutting schedule

Work out the most efficient way of covering the surfaces using Armaflex sheet (2 x 0.5 metre) or continuous roll (1m width and length 4-15m dependent upon the thickness).

Armaflex sheet layout for large vessels and tanks

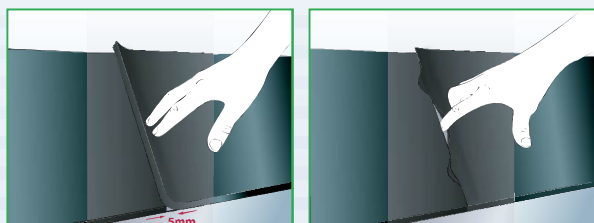
Note: ensure that sheet joints are staggered.



Compression joints

Provide an allowance of an additional 5mm on all dimensions when cutting from Armaflex sheet or roll.

Always make compression joints. On curved surfaces, measure the circumference with a strip of Armaflex of the same thickness to be used for the insulation, including any surface finish. Do not stretch the strip.

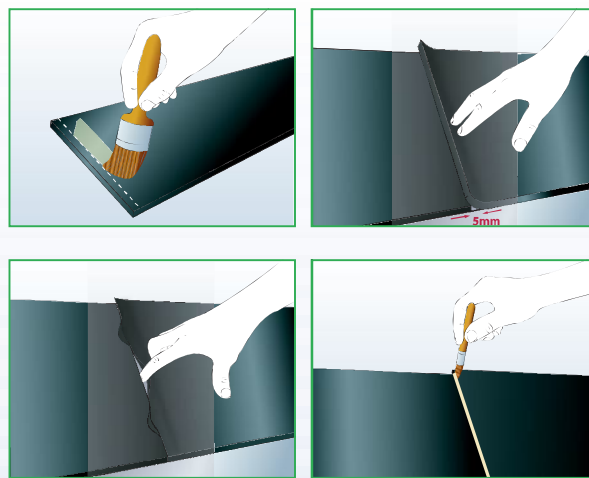


Adhesion

Apply Armaflex adhesive first to the insulation before applying adhesive to the metal surface.

All seams are joined wet. Leave about 30mm without an adhesive coating on the Armaflex surface. Attach the connecting sheet with adhesive and with 5 mm overlap. Then press in the overlapping butt joint to give additional compression.

Wet sealing of joints on flat surfaces:



Multi-layer application

Where multi-layer insulation is installed use Armaflex cleaner, after 36 hours (see page 10) to remove any talc, chalk, dirt, grease and moisture from the surfaces to be joined. Stagger all seams and butt joints on the second layer relative to the first layer.

Complex shapes

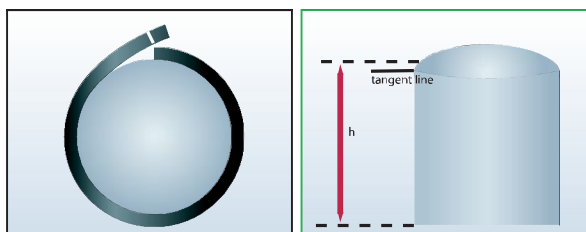
Where complex shapes are to be insulated, the shape of the body is outlined with chalk and this may be transferred directly to the Armaflex sheet by pressing the flexible material against the metal surface so that the chalk is transferred. Cut along the chalked line with a sharp knife to obtain a good fit for the Armaflex.

Outdoor installations

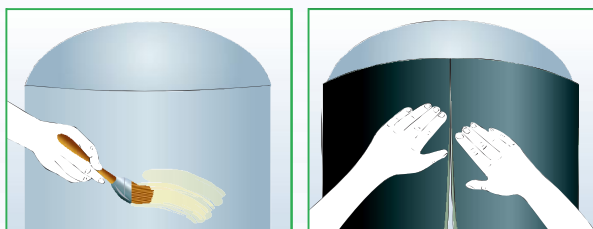
All Armaflex materials (excl. HT/Armaflex) used outdoors will require additional protection against UV radiation. We recommend the use of Armafinish FR paint or one of the Arma-Chek Systems (see page 5).

HT/Armaflex insulation does not require painting when used outdoors.

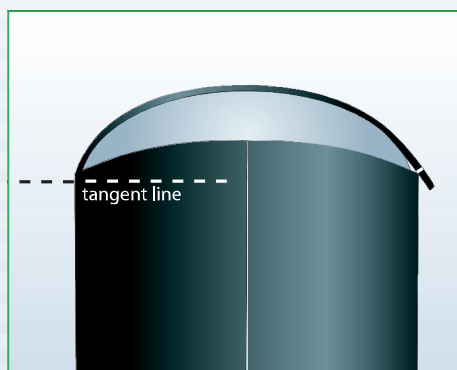
INSULATING SMALL ($\varnothing < 1.5\text{m}$) TANKS AND VESSELS USING ARMAFLEX SHEET



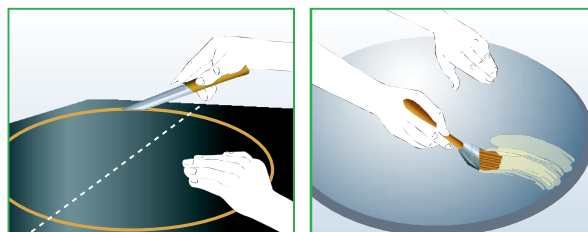
1. Determine the circumference of the tank.
Important: Always measure with a strip of Armaflex of the thickness to be used for the insulation.
Warning: Do not stretch the strip.



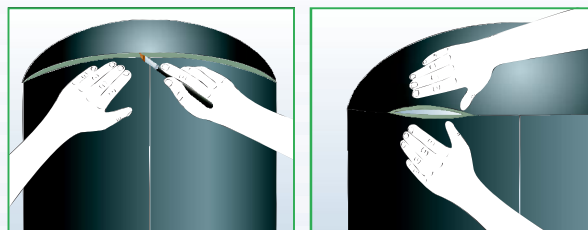
2. Transfer the circumference to the Armaflex sheet and cut to the required size. Spread a thin film of adhesive onto the Armaflex sheet... and then onto the metal surface. When the adhesive is tack dry (fingernail test) place Armaflex sheet in position and press firmly to achieve a good bond.



3. Determine the curve length of the domed surface.
Important: Always measure with a strip of Armaflex of the thickness to be used for the insulation.
Warning: Do not stretch the strip.

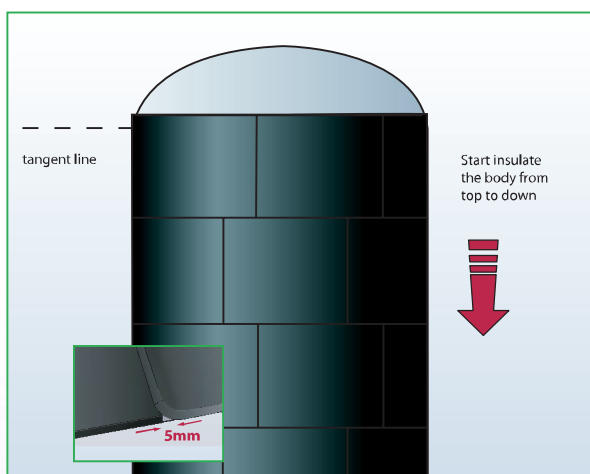


4. Using the curve length as the diameter mark out a complete disc on a piece of Armaflex sheet. If this disc is too large to fit on a single sheet of Armaflex first adhere multiple sheets together.
5. Cut around the disc.
6. Spread a thin film of adhesive onto the back of the Armaflex sheet... and then onto the metal surface.



7. When the adhesive is tack dry (fingernail test) place Armaflex sheet in position onto the top of the tank and press firmly down from the centre, avoiding any slipping of the material, to achieve a good bond.
8. Apply an additional wet seal along the edges at the top of the tank.
9. After the adhesive has been given time to tack dry press the edges of the seam firmly together.

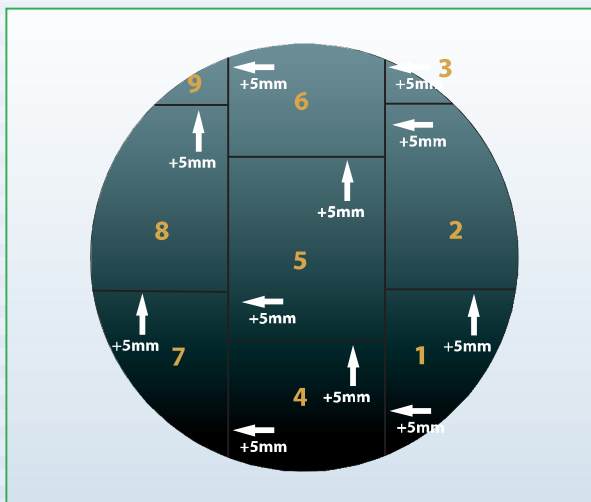
KEY BASIC APPLICATION PROCEDURES FOR LARGE VESSELS Ø > 1.5 MTS.



Install the Armaflex sheet panels from the domed end section of the vessel as shown. Use all-over adhesive coverage to both surfaces.

Continue to install the panels of Armaflex around this domed end section. Ensure the Armaflex sheet is fitted under compression. After the first ring of panels are installed, continue to apply other panels of Armaflex sheet around the body of the vessel as shown.

When the entire surface area of the vessel body is completed, to finish, insulate the dome ends as shown by installing vertical Armaflex panels.



To determine the circular edge cut profile, which is located around the completed body section of dome end – mark the Armaflex circular edge with White marking chalk.

With the first pre-cut Armaflex sheet panel as required, place with a 50mm overrun, the sheet over the profile edge, apply firm pressure and remove. The underside of the Armaflex sheet will show the impression of the required profile.

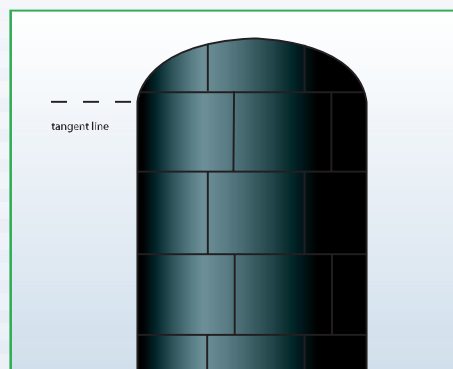
Cut the marked profile with a shape knife and install directly to the section required with all over adhesive coverage. Note: Do not apply adhesive to the circular profile edges of the domed end. This is done last by wet sealing the *jointing details as described below.

Continue to install the required insulation panels as required to complete the domed section.



To finish, *wet seal the domed panels to the main insulated body sections as shown within the section relating to vessels below 1.5 mts.

If required the dome end profile sections can be chamfered, to fit the body panel edge perfectly.





ARMACELL - ZAMIL MIDDLE EAST CO.
Dammam First Industrial City
P.O. Box No.8265, Dammam - 31482, KSA
Customer Service Dept.
Phone : +966 3 8471888 (Ext.180), Fax : +966 3 8471363
E-mail : ravi.kumar@armacell.com
Website: www.armacell.com, www.armacell-zamil.com

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