APPLICATION MANUAL

# ArmaClad<sup>™</sup> Arma-Chek<sup>®</sup> Wrap

ArmaClad Arma-Chek Wrap is a high-performance insulation covering material that offers excellent protection against UV and mechanical impacts. Suitable for use in various applications, including HVAC, industrial piping, and refrigeration systems, it features a self-welding capability, ensuring a tight and seamless finish, giving superior insulation performance.

www.armacell.com

QUICK AND EASY TO INSTALL









#### KEY CONSIDERATIONS PRIOR TO THE APPLICATION

- // Arma-Chek Wrap should not be combined with the following substances: asphalt, tar, turpentine, petrol, fats, thinner, oil, hydrochloric acid, and tetrahydrofuran.
- // Arma-Chek Wrap can be applied on various insulation materials like fibrous (e.g. mineral wool, stone wool) and cellular (flexible elastomeric foams) insulation materials.
- // The ventilation system must achieve a minimum air tightness class of B, with a maximum pressure of 200 Pascal.
- // Arma-Chek Wrap can be applied for underground pipelines. Make sure that no stones, bricks or any other object damage the Arma-Chek Wrap surface.
- // Arma-Chek Wrap does not stick on fibrous surfaces. When applying Arma-Chek Wrap, make sure to use a smooth insulation material beneath it, such as Flexible Elastomeric Foam (FEF), aluminium foil. If the air duct is insulated with mesh mat, add an outer layer of aluminium foil and seal all seams with aluminium tape before applying Arma-Chek Wrap.

- // Insulation beneath the Arma-Chek Wrap must be applied correctly before applying Arma-Chek Wrap.
- // Always apply pressure to Arma-Chek Wrap surface and avoid air enclosure between the insulation and Arma-Chek Wrap product.
- // In case of extensions, branches, valves, etc. it needs to be guaranteed that the connections are vapor tight. This can be done by extending Arma-Chek Wrap covering to the branches and seal them using Arma-Chek Mastic. Arma-Chek Wrap surface can be roughen using P60 sandpaper.
- // Underwater applications should be treated carefully. All longitudinal and circumferential seams should be sealed with Arma-Chek Mastic.
- // Release paper should be taken out only prior to the application to prevent any dust or debris accumulation onto Arma-Chek Wrap surface.
- // Arma-Chek Wrap should be installed in a way that no tension or stretch is present during and after the installation.
- // For Arma-Chek Wrap surface cleaning, use our ArmaFlex SF Cleaner and a microfiber cloth.



## ArmaClad Arma-Chek Wrap

QUICK AND EASY TO INSTALL





WEATHER-RESISTANT -SUITABLE EVEN FOR OUTDOOR APPLICATIONS



Claddings have come a long way from rigid jackets to flexible coverings. With our Arma-Chek Wrap product, protecting technical insulation from mechanical impact and weathering has now become even easier and faster.

#### TOOLS

// Measuring Tape // Craft Knife // Set Square	lengths and widths, making it easy to cut to size. When working with our Arma-Chek Wrap product,, ensure that the surface is clean and free from any debris or
// Divider	contaminants.
// Caliper // Mastic Gun	Do not apply our Arma-Chek Wrap product <0°C or >+40°C.
Arma-Chek Wrap product width (mm): 70, 250, 500, 750, 1050	Do not install our Arma-Chek Wrap product if weather conditions are

Chek Wrap tions are unsuitable (e.g., rain, condensing fog, snowfall, etc.), without an enclosure / tenting.

The product comes in rolls of various

## Sustainable solution:

Arma-Chek Wrap product is 100 % recyclable and free of halogens, silicone and solvents.

### STRAIGHT CUT



Measure the length and circumference of the pipe that needs to be covered with our Arma-Chek Wrap product. Add a minimum 20mm overlap to circumference.



Min. 20mm overlap should be given longitudinally and circumferentially. **Always apply pressure to the overlaps.** 



Always stagger the longitudinal overlaps and position them to the side with the seams downward facing to provide watershed.





Fabricate the appropriate fishtail pattern. Add a 20mm longitudinal and circumferential overlap to all segments.



Start the installation of our Arma-Chek Wrap product by applying the starter segment. Fix and secure in the same way as the straight sections.



Apply the remaining centre segments. Each segment should overlap around the circumferential edges by a minimum of 20mm.



To complete the fitting, apply the final finishing segment.



#### ELBOW WRAPPING



If the diameter of the bend is >90mm, the wrapping method can be applied. Use our Arma-Chek Wrap product with 70mm width and begin the wrapping process at one end of the bend and work your way towards the other end.



Apply moderate tension to the self-welding covering when wrapping it around the pipe. This helps ensure a secure and uniform application.



Wrap the self-welding covering material around the insulated pipe, ensuring that each new layer overlaps the previous one by a minimum 20mm.



Repeat the wrapping process, maintaining the overlap and tension, until reaching the opposite end of the bend.







For the main body part of tee, proceed as a straight pipe covering. The diameter of the tee (as two semi-circles) to be drawn onto the body-part template as described in the next image.



Draw a semi-circle (diameter D as in the previous image) on the one end of the prepared body-part template. Draw a smaller semi-circle with 20mm distance and cut the inner semi-circle out. Repeat this step for the other end of the body-part template.



Position our Arma-Chek Wrap product and fix it to the insulation surface.



Apply even pressure to all the overlap seams and joints. Ensure all overlaps are fully secured down without any gaps.



Use the lengths a & b from the previous image to create the size and shape of the required part and make cut outs for the connection part.



Apply our Arma-Chek Wrap product with an overlap of 20mm onto the body.

#### REDUCER



The length and both circumferences to be measured. Add each 20mm overlap to the longitudinal and circumferential joints.



Create the template according to the measurements. Divide the circumferences by 10.



Transfer the template onto our Arma-Chek Wrap product surface and mirror it 10 times.



Starting at one end of the pipe reducer, carefully wrap the self-welding material around the pipe. Ensure that the material is tightly secured without gaps.



Apply our Arma-Chek Wrap product with an overlap of 20mm onto the body.







Apply straight pipe insulation as mentioned previously until the end of the pipe. Add an additional 20mm for the overlap.



Fold back the longitudinal extra 20mm. To prevent the folded section from sticking to itself, it is essential to insert a release paper between the folded piece and our Arma-Chek Wrap product surface.



Cut the end cap disc with the radius of the insulated pipe and add an extra 20mm.



Apply the disc to the end of the pipe and unfold the first applied covering. During the vulcanisation process, it is important to match the edges of the end cap and pipe covering.



Apply firm pressure to the edges.

### END TERMINATIONS



Make sure the surface is clean and no dust or debris are present.



Take the circumference of the pipe using a 50mm width strip of Arma-Chek Wrap and add 20mm.



Apply Arma-Chek Wrap around the termination. Makes sure to have 20mm of Arma-Chek Wrap is attached to the termination surface.



Apply pressure to Arma-Chek Wrap using a roller. Make sure all connections are sealed properly.



Apply Arma-Chek Mastic at the edges.



Installed product.

## PIPE SUPPORT

#### ARMAFIX<sup>™</sup> PIPE SUPPORT



Measure the length of the straight pipe between both ArmaFix metal clamps.

#### ARMAFIX PIPE SUPPORT



Apply our Arma-Chek Wrap product onto the surface of the ArmaFlex insulation and on the ArmaFix pipe hangers.

#### ARMAFIX PIPE SUPPORT



Installed product.

#### COMMON PIPE SUPPORT



Apply a small piece of our Arma-Chek Wrap product around the rod with a length of 30-50mm.



Proceed as a straight pipe covering. Include a cut-out with a diameter equal to the rod diameter.

#### COMMON PIPE SUPPORT



Apply our Arma-Chek Mastic product where our Arma-Chek Wrap product and rod meet.

#### DUCT APPLICATION



70mm Arma-Chek Wrap bands to be applied all around the insulated duct with 300mm distances. Suitable for pin applications according to DIN4140. Bottom section

of the duct (9 pins/m²) The overlap of the bands to be positioned on the upper section of the duct with at least 20mm.



Cut Arma-Chek Wrap in a length equal to the width of the insulated duct + 20mm longer from both ends for overlapping and apply to the bottom section of the duct.



The next layer of the bottom section should overlap at least 20mm onto the previous Arma-Chek Wrap application.



Left and Right sections of the insulated duct as well as the upper section can be covered with Arma-Chek Wrap in one. At least 20mm overlap onto the bottom section of Arma-Chek Wrap to be given.



Next layer of the sides and upper section to be overlapped at least 20mm onto the previous Arma-Chek Wrap layer.



To effectively insulate duct flanges, use Arma-Chek Wrap and measure the flange's circumference. Ensure a minimum overlap of 20mm for proper insulation.

## DUCT APPLICATION



The width of the Arma-Chek Wrap should match the width of the flange insulation plus four times the thickness of the flange insulation (IT).



Wrap the entire flange while keeping the release paper intact. Align the corners and trim the Arma-Chek Wrap from both sides until it meets the corner of the flange insulation.



Remove the release paper and apply Arma-Chek Wrap onto the flange insulation, always starting from the bottom and working your way up.



Proceed as the previous step and apply Arma-Chek Wrap around the entire flange. Take close attention that no insulation material is visible and the application is water-tight.

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## ABOUT ARMACELL

As the inventor of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal 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 more than 3,300 employees and 27 production plants in 19 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for acoustic and lightweight applications, recycled PET products, next-generation aerogel technology and passive fire protection systems.

