

PROTECTING YOUR INSULATION

# Cladding systems

Weathering, UV-radiation, mechanical impact or exposure to chemicals – technical equipment has to withstand a lot. Without a protective shell the insulation can easily be damaged and lose its functionality. Armacell offers a broad range of cladding systems.

**The ideal solution for your application requirements.**

[www.armacell.eu](http://www.armacell.eu)



 **armacell**<sup>®</sup>  
MAKING A DIFFERENCE AROUND THE WORLD

## ABOUT ARMACELL

Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. We recently extended our tailor-made cladding solutions to include PVC elbows, PVC foil, PVC ribbons and pipe support. Day in day out, our new technologies meet specific requirements and make a difference around the world.

# WHY

## CLADDING BENEFITS

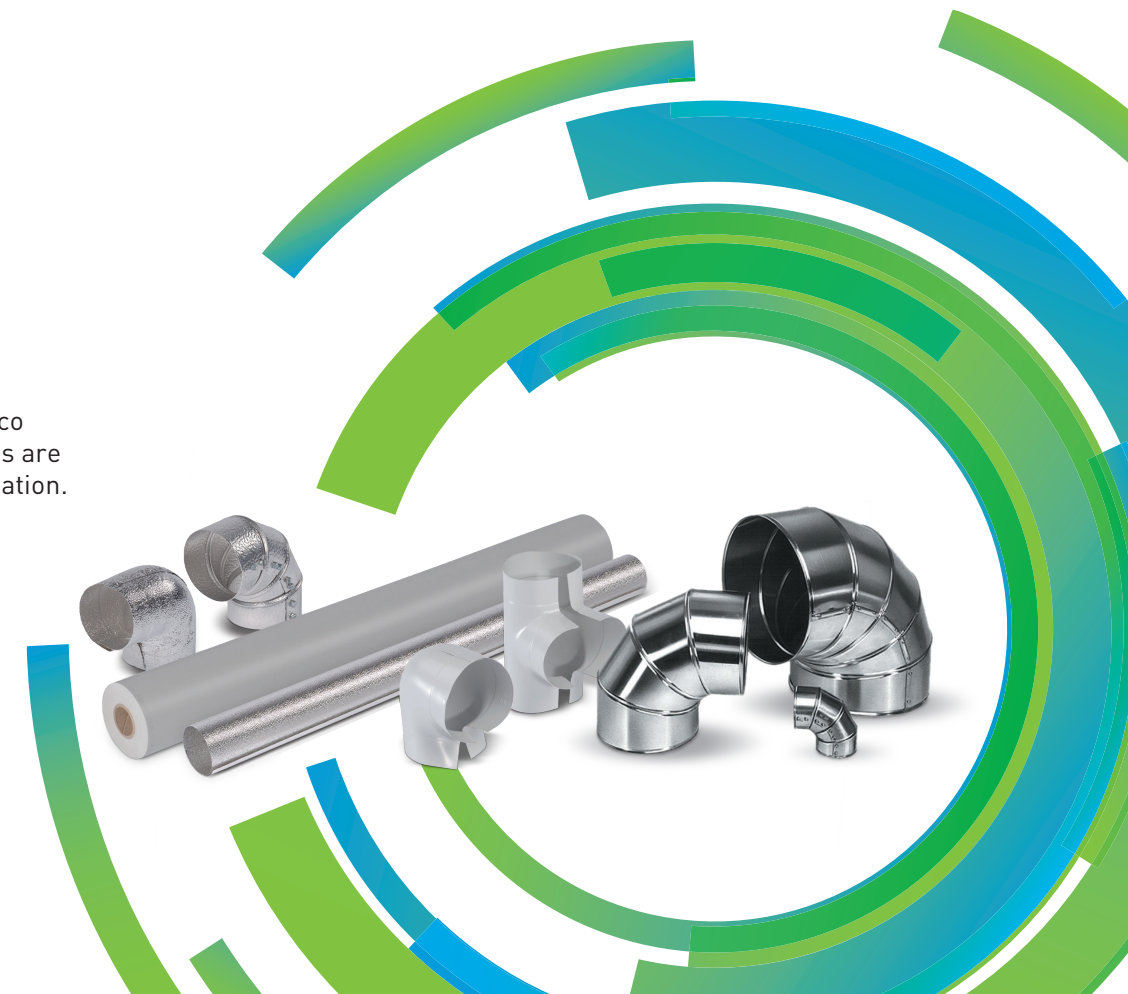
Claddings protect the insulation material underneath against both mechanical damage and the penetration of moisture, oil, chemicals and other substances which can affect its functionality. On outdoor installations, claddings also provide protection against UV rays, weathering and an increased risk of corrosion. In addition, the systems enhance the appearance of exposed pipework. It is also easier to keep pipework clean if it has been equipped with an appropriate cladding. This is of particular importance where not only an aesthetic finish, but also hygienic requirements play a role.

### Advantages of machine production

Nowadays many insulation companies rely on industrially produced cladding systems and concentrate on the fabrication of more complex fittings. Serial production has clear benefits: electronically controlled production lines guarantee that pipes, elbows, caps and end discs are 100 % dimensionally accurate. Armacell offers the largest range of claddings available from stock and is a market leader in this segment.

### Cladding systems:

Smooth sheet metal, stucco aluminium and plastic foils are all used for covering insulation.





# PROTECTION

## METAL CLADDING IN ACTION, INDOOR AND OUTDOOR

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While metal claddings can be installed in both indoor and outdoor applications, the use of stucco aluminium and plastic foils is limited to equipment inside the building.

### // Protection against mechanical and chemical impact

Of the traditional covering systems, metal claddings provide the best protection against mechanical impact. They are made from hot-dip galvanised steel sheets, aluminium sheets or stainless austenitic steel sheets. In addition, steel sheets with an aluminium-zinc coating, aluminiumised steel sheets and plastic-coated steel

sheets are also available. Which of these types of sheet metal is used depends on the area of application in question, i.e. on the atmospheric conditions to which the cladding will be exposed. If there is high chemical exposure due to acid, alkali or solvent atmospheres, it is preferable to install metal sheets made of stainless austenitic steel.

### // Visual appearance

Even if the insulation material does not require protection against chemical or mechanical impact, claddings are often used to satisfy aesthetic requirements. Nowadays, for example, suspended ceiling systems, under which the installations would be hidden, are often dispensed with for cost reasons.

### // Enhanced protection

Fire performance can also be the reason for installing sheet metal claddings. The metal jacket “encapsulates” the fire load when combustible insulation is used, e.g. materials based on synthetic rubber. Under certain circumstances, using metal cladding allows these insulation materials to be installed on escape and rescue routes.





# PLANTS

## SPECIALISED FOR CLADDINGS

### Friesenhofen (Germany)

For more than 30 years, Armacell has been supplying claddings in addition to technical insulation materials. The metal and PVC products are manufactured at the Friesenhofen plant in Southern Germany. Armacell offers the largest range of claddings available from stock and is the market leader in this segment. The Friesenhofen plant supplies the German market, as well as many countries in Northern, Southern and Central Europe.

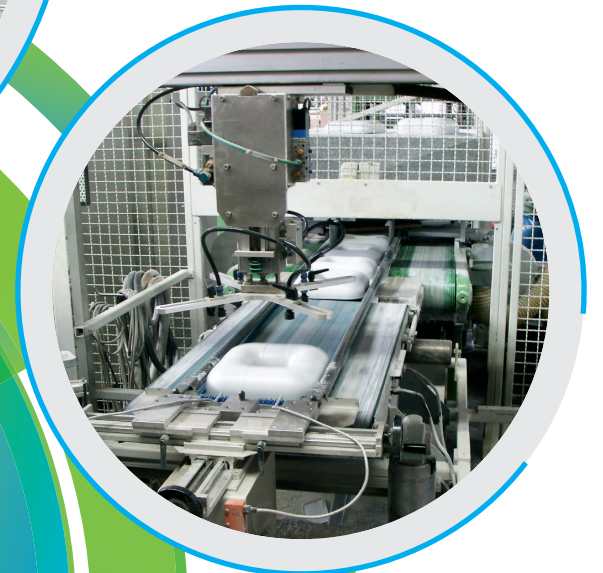
### Ølstykke (Denmark)

With the acquisition of Danmat Iso Systems A/S (Ølstykke, Denmark) in 2017, Armacell extended its range of PVC cladding systems. The additional manufacturing facility allows the company to enhance its offering of tailor-made insulation and covering solutions. The Isotop product lines are the ideal addition to the existing Armacell range of PVC claddings and enable the flexible production and prompt delivery of smaller item quantities.

### Key benefits

- broad cladding range
- customised solutions
- fast delivery
- small packages
- technical service

more than  
**30**  
years  
experience





# OKABELL®

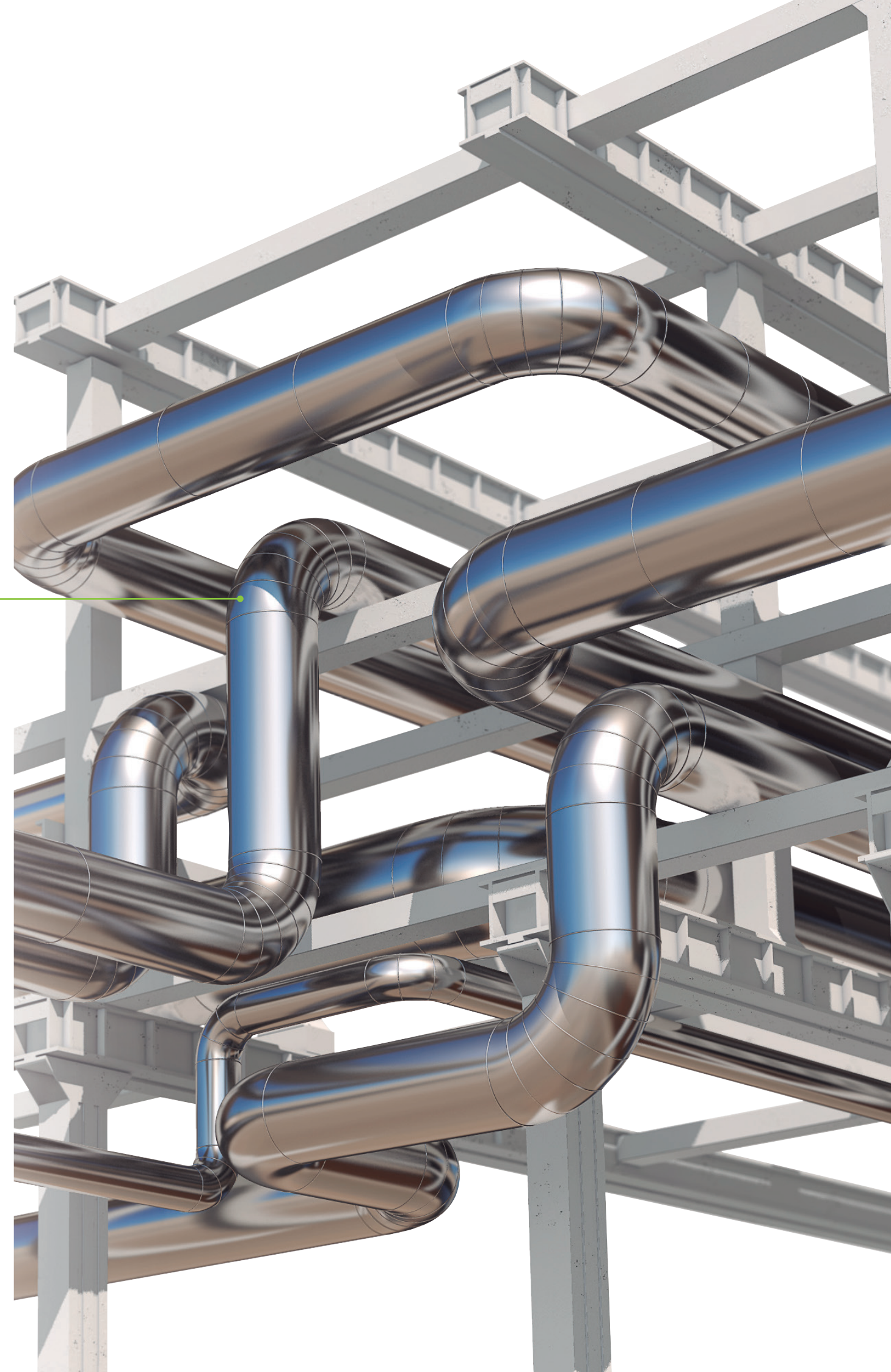
## HIGH-QUALITY METAL CLADDING

Our OKABELL range includes jacketing, segment bends and caps made of galvanised steel sheets, pure aluminium or aluminium alloys, which are resistant to seawater. Products fit precisely and

can be assembled easily and quickly. Used in warm and cold applications on indoor and outdoor installations to tailor-made constructions for industry, such as in the chemical or food sector.

### // YOUR BENEFITS

Long-life outdoor applications due to corrosion resistance. Customised production with different types of metal and thicknesses. Protect insulated pipes against mechanical impact. Armacell can supply standard and custom-made OKABELL cladding quickly.







# OKAPAK/ISOTOP

## PVC CLADDING

### OKAPAK

Our rigid PVC covering system protects insulation against damage as a result of mechanical impact. It enhances the appearance of visible insulated equipment and has a high degree of prefabrication. Components are dimensionally accurate and installation / assembly on the construction site is easy.



Through the acquisition of Danmat Iso Systems, one of Scandinavia's leading providers of integrated cladding solutions, we strengthened our presence in Northern Europe, enabling tailor-made cladding solutions and extending our range to include PVC elbows, PVC foil, PVC ribbons and pipe support.



### ISOTOP

We offer T-pieces and numerous one-piece 90° and 45° elbows for all conventional pipe diameters and insulation combinations.

All items are available in white, light grey, black and the aluminium look. All fittings can be manufactured to meet your individual requirements and supplied at short notice.





# BENDS



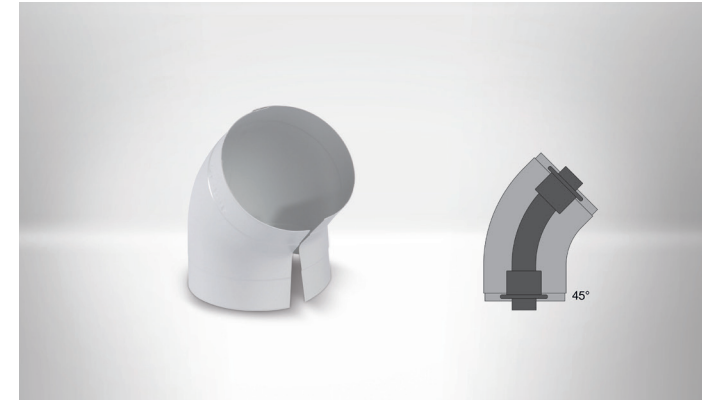
## // 90° One-piece bends

One-piece bends with reinforced welded reverse side for a perfect fit.



## // 90° Two-piece bends

Two-piece bends with reinforced welded reverse side for a perfect fit.



## // 45° Two-piece bends

Two-piece welded bends with reinforced reverse side fit perfectly on bends according to DIN 2605, norm 3 (1,5 d) with insulation  $\leq 50$  mm.



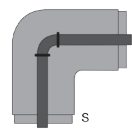
## // Various colours

All bends and T-pieces are available in four different colours:

- light grey
- sand grey
- nordic white
- black

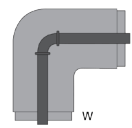
Not only the complete cladding system, but also accessories such as rivets and tapes are offered in all these colours.

## EXTENSIVE RANGE OF 90° BENDS:



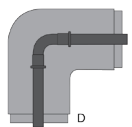
### // S bends

Bends for standard applications: S-shaped, seamless steel pipes according to EN 10253-1, type 3 (1,5 d) with insulation  $\leq 100$  mm.



### // W bends

Bends for standard applications: W-shaped, angled, malleable cast-iron fittings according to EN 10242, A1, A4 with insulation  $\leq 50$  mm.



### // D bends

Bends for D-shaped, short, malleable cast-iron fittings according to EN 10242, D1, D4 with insulation  $\leq 60$  mm.

### // G bends

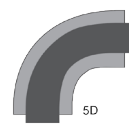
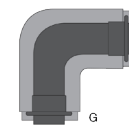
Bends for G-shaped, long, malleable cast-iron fittings according to EN 10242, G1, G4, G8 with insulation  $\leq 60$  mm.

### // 5D bends (only one-piece bends)

Bends for 5D-shaped, long, insulated, malleable cast-iron fittings according to DIN2605-1 with insulation  $\leq 50$  mm.

### // SML bends (only two-piece bends)

Bends for cast-iron pipes with insulation  $\leq 40$  mm.



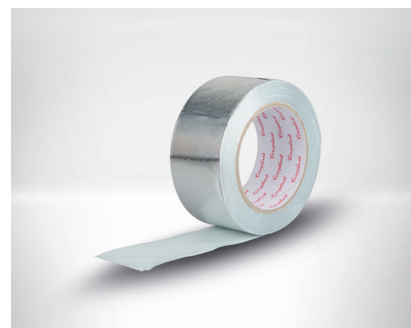
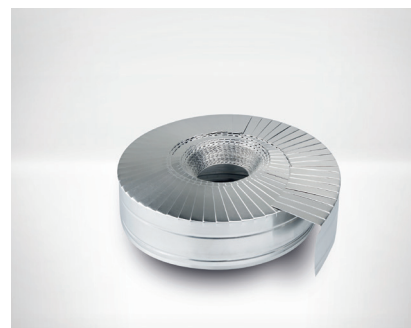
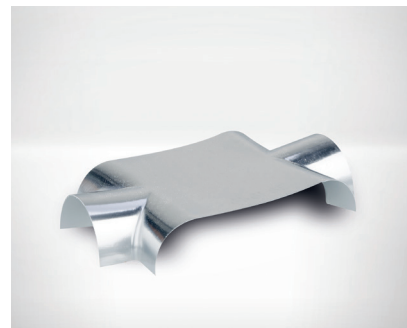
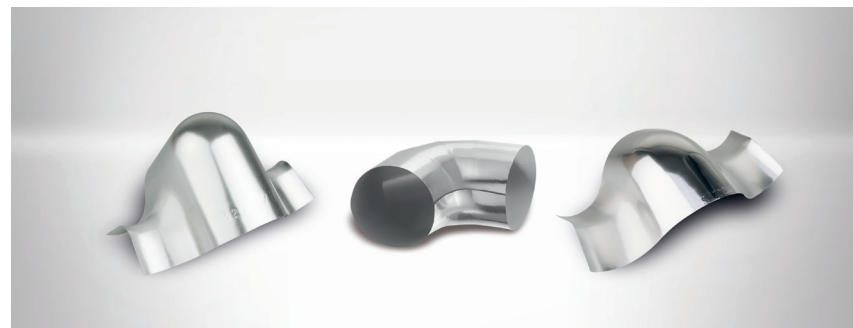
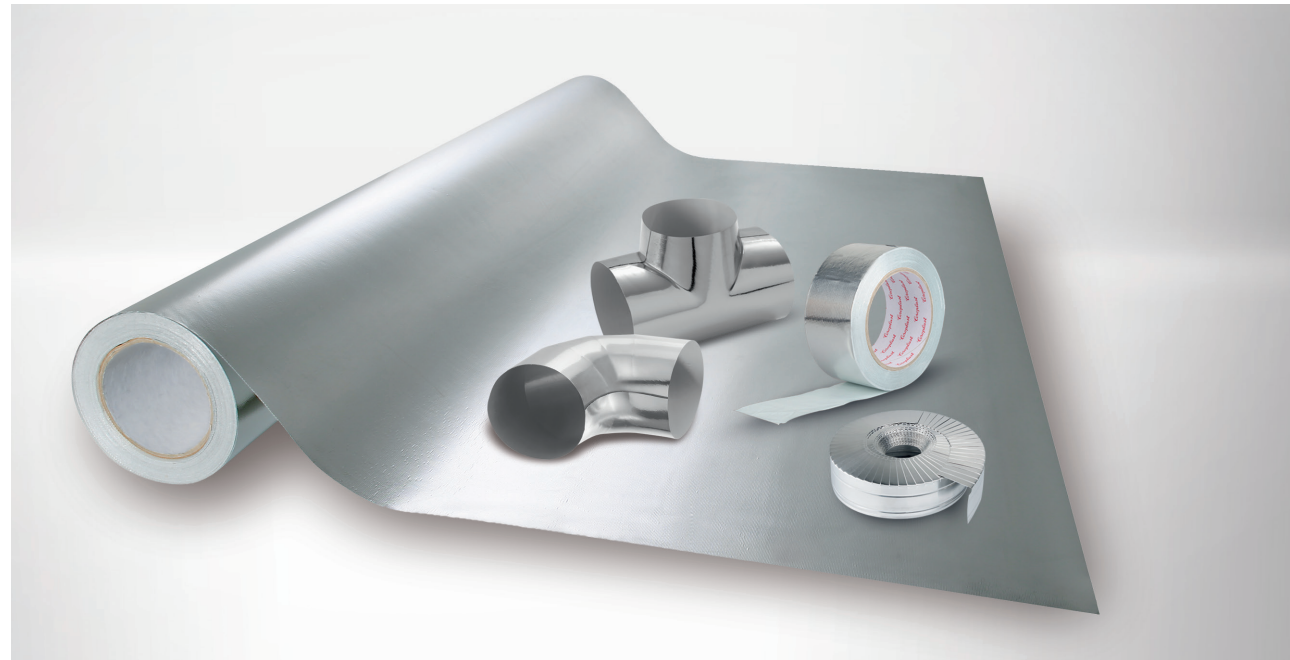
## // Foil in rolls

The covering system is also available in rolls. Due to the curl effect, the foils can be installed quickly and easily on insulated pipe sections. The foils are provided in all four colours in various sizes and thicknesses.



# ALUTEX

The multi-layer, metal-effect covering looks like a sheet metal cladding, but it is much more flexible. With a robust surface it protects installations against mechanical damage, UV-radiation and chemicals.



# DANCAP

2-in-1 solutions for valves and victaulic bends.

At Armacell, we appreciate that insulating valves and bends with grooved pipe connectors (victaulic bends) takes effort and time, so we offer an innovative 2-in-1 solution. Our two-piece caps and bends, which consist of polyurethane insulation with a polystyrene covering, conforms to preferred shapes and are fastened quickly with metal rings or tapes. Product removal and reinstallation is made simple during regular maintenance cycles, reducing downtime.

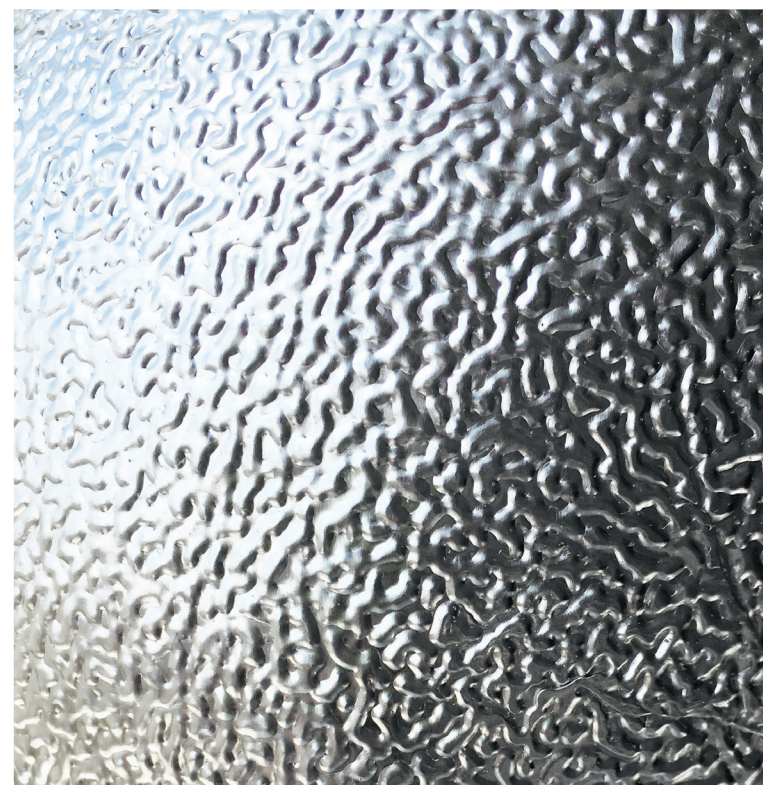




# OKATHERM

## NON-COMBUSTIBLE JACKETING SYSTEM

Best used in indoor applications that avoid knocks and blows, our non-combustible aluminium cladding system has an attractive stucco embossed surface structure. Highly flexible and manufactured with a permanent curl makes it the right fit for installers. With our lightweight solutions, no support and bearing structures are required when metal jackets are installed. If insulating elbows, branches and fittings, use our pressed, deep drawn or segmented fittings for a professional finish.



### // Key benefits

- good resistance to mechanical impact
- prefabricated bends are easy to install
- good resistance to seawater
- made in Germany

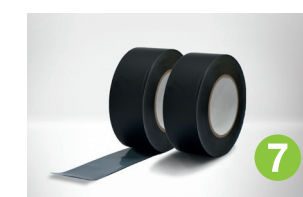
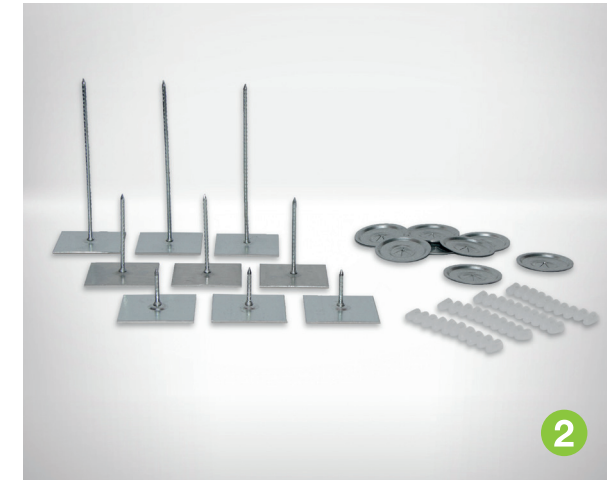
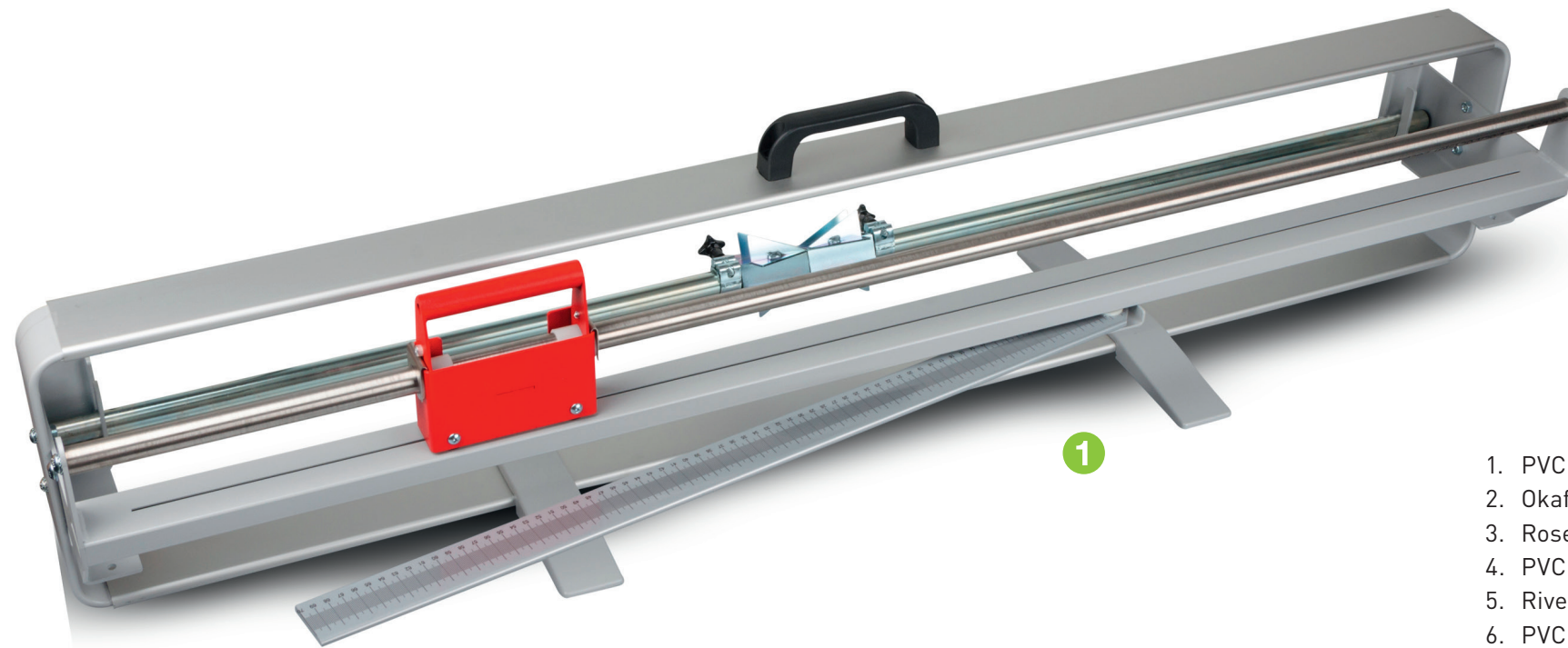


# ACCESSORIES

## FAST AND EASY APPLICATION

Great results can only be achieved if components fit together harmoniously and are installed professionally. At Armacell, we provide a whole range of accessories and tools, such as pins, rivets and self-adhesive tapes, specially developed for various cladding systems.

With our ArmaFlex accessories you can increase the reliability, efficiency and service-life of your technical installations.



1. PVC cutting table
2. Okafix quick-fixing pins
3. Rosette endcaps
4. PVC endcaps
5. Rivets
6. PVC tool for rivets
7. Self-adhesive tapes in all colours
8. PVC tape



All data and technical information are based on results achieved under the specific conditions defined according to the testing standards referenced. It is the customer's responsibility to verify if the product is suitable for the intended application. The responsibility for professional and correct installation and compliance with relevant regulations and project specification lies with the customer. Armacell takes every precaution to ensure the accuracy of the data provided in this document and all statements, technical information and recommendations contained within are believed to be correct at the time of publication. By ordering/receiving product you accept the **Armacell General Terms and Conditions of Sale** applicable in the region. Please request a copy if you have not received these.

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## ABOUT ARMACELL

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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 3,100 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.eu](http://www.armacell.eu)

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