



THERMAFLEX®

Sustainable insulation solutions

Insulation brochure | EN 2026

00.023.510 - Version 2.0



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Product images are for illustration purposes only. Actual products may differ in appearance.
For detailed information, please refer to the product specification or contact us.

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About Thermaflex

Sustainable insulation solutions

Thermaflex is a global company, headquartered in the Netherlands, with 4 production sites, sales offices and distribution partners worldwide. For over 50 years, we have developed and produced high-quality sustainable insulation and pre-insulated piping solutions that help customers save energy and extend the system service life. Our goal is to help minimise energy waste and optimise the use of natural resources.

Thermaflex founded
by Leendert Baars
1976

Direct extrusion
of polyolefin foam
1983

(H)CFC-free production
of foams
1990

Thermaflex acquires
Flexalen®
2001

Launch of
Flexalen® 600
2002



Worldwide sales & distribution with 4 production plants:

the Netherlands, Poland,
Turkey, Thailand

Engineering and support

Thermaflex provides expert engineering assistance to help customers select the optimal solutions for their technical requirements. We offer installation training and project support.

Customised solutions

Thermaflex collaborates closely with customers to develop tailored solutions to their specific needs and requirements.

More than 50 years of innovation

Founded in 1976, Thermaflex quickly grew into a prominent international player, providing a wide range of smart and sustainable solutions for heating, cooling and potable water, including a revolutionary way to construct district heating networks.

Launch of
ThermaSmart[®] PRO
2011

Proven sustainability Cradle
to Cradle Certified[®] and EPD
2014

Launch of
ThermaSmart[®] Marine
2.0 Black
2020

Launch of
ThermaSmart[®] 4.0
2025

Sustainability at Thermaflex

At Thermaflex, our goal is to make a positive contribution to our environment by delivering sustainable insulation and pre-insulated piping solutions that help minimise energy waste and optimise the use of natural resources.

We are Thermaflex. For 50 years, we have been developing and producing high-quality and sustainable insulation and pre-insulated piping solutions across the world. Our innovative solutions help clients save energy and extend the system lifespan.

Our purpose is to deliver energy savings and sustainability with high-quality, innovative insulation and pre-insulated piping concepts. Lower energy consumption means lower costs for our clients and their end users, lower emissions of harmful substances, and longer service lifespans for buildings, systems, appliances, and machines.

We carry out comprehensive life-cycle assessments (LCAs) for our products to demonstrate and share the environmental friendliness through all stages of their life cycle. Based on these assessments we publish environmental product declarations (EPDs), certified by an external party.

Through this transparent 'sustainability passport' of our products we are enabling companies to make sustainable decisions.



"Committed to combating climate change, we reduce energy consumption and lead the transition to a low-carbon economy. With the Cradle to Cradle certifications, we produce high-quality sustainable products."



Hans de Haas
CEO Thermaflex International

We are the only insulation and pre-insulated pipes supplier whose product are Cradle to Cradle Certified®.

The Cradle to Cradle Certified® Product Standard is a globally recognised measure of safer, more sustainable products made for the circular economy. The certification assesses products across five categories: material health, product circularity, clean air and climate protection, water and soil stewardship, and social fairness.



We sustainably produce all our products and only offer products that:



**Are fully
recyclable**



Consist of safe



**Are made in an
environmentally
friendly way**



**Minimise energy
waste and
maximise the
use of renewable
resources**

Markets & application areas



HVAC/R

Insulation for heating, cooling, air conditioning and ventilation systems, reducing energy loss and condensation.

Construction

Insulation for building services piping that improves energy efficiency, comfort, durability and frost protection in new build and renovation projects.



Industry

Insulation systems for pipes and equipment in demanding processes such as food processing, cold storage and chemical production, ensuring stable thermal performance and reduced energy consumption.

Marine

ThermaSmart® Marine delivers exceptional insulation performance across your entire system, from pipes and ducts to chillers and air handling units, prevents condensation and optimises system performance in challenging maritime environments.



Packaging

Products manufactured with expertise and care deserve the best protection during production, transport, and storage. Our ProFoam System solutions prevent damage and protect your products.

OEM

Whether you're developing heating/cooling equipment, refrigeration systems, industrial skids, or HVAC units, Thermaflex provides tailored insulation solutions that meet your specific requirements.



	Drainage	Heating	Sanitary	Cooling	Air Conditioning & Ventilation
ThermaSmart® PRO Tube	●	●	●	●	●
ThermaSmart® PRO SA Tube	●	●	●		
ThermaSmart® PRO Sheet	●	●	●	●	●
ThermaSmart® PRO SA Sheet	●	●	●	●	●
ThermaEco FRZ HF Tube	●	●	●		●
ThermaEco ZZ Tube	●	●	●		●
ThermaSmart® Marine 4.0 Tube				●	●
ThermaSmart® Marine 4.0 Sheet				●	●
ThermaCompact IS Tube	●	●	●		
ThermaCompact IS10 Tube	●	●	●		
ThermaCompact TF Tube		●	●		
ThermaSmart® ENEV Tube	●	●	●		
ThermaSmart® ENEV-Q Tube	●	●	●		
Ultra M		●	●		
ThermaPur Tube	●	●			
ThermaPur prefab	●	●			
ThermaWool Alu	●	●			
Specialised coatings	●	●	●	●	●
Alu sheet covering	●	●	●	●	●
ThermaLint	●	●	●		
Tracing Set	●	●	●		

Material and production process

Thermaflex technical insulation is made from high-quality, closed-cell polyolefin foam engineered for energy efficiency, durability, and sustainability. The material is free of CFCs, non-toxic, and fully recyclable, offering reliable performance with minimal environmental impact.

Our modern production lines use precise extrusion and foaming technologies to ensure uniform cell structure, consistent quality, and excellent resistance to moisture, temperature, and mechanical stress.

By combining advanced material design with controlled, sustainable manufacturing, we deliver insulation solutions that perform reliably and contribute to more efficient, future-ready systems.



Our certificates



Official member of



ThermaSmart[®] PRO



Advantages

- Unique solution combining long-term vapour resistance and heat thermal insulation
- Low risk of corrosion
- Fast fabrication of fitting insulation using a welding technique up to inner diameter 42 mm



high-quality polyolefin foam



$\lambda = 0.034$ at 0°C
 $\lambda = 0.038$ at 40°C



SBI B_L - s1 d0 (tube)
SBI B - s2 d0 (sheet)



$\mu \geq 10.000$ (tube)
 $\mu \geq 5.300$ (sheet)



-80 °C to +95 °C

ThermaSmart[®] PRO SA



Advantages

- Consistent performance - damage-free, robust insulation material
- Fast installation due to self-adhesive layer
- Safety - excellent fire and smoke behaviour



high-quality polyolefin foam



$\lambda = 0.034$ at 0°C
 $\lambda = 0.038$ at 40°C



SBI B_L - s1 d0 (tube)
SBI B - s2 d0 (sheet)



$\mu \geq 10.000$ (tube)
 $\mu \geq 5.300$ (sheet)



-80 °C to +95 °C

ThermaEco FRZ HF, ZZ



Advantages

- Halogen-free product
- Affordable insulation
- Consistent performance - damage-free, robust insulation material



closed-cell
polyethylene foam



FRZ $\lambda = 0.040$ at 40°C
ZZ $\lambda = 0.041$ at 40°C



SBI B_L -s1 d0 (up to 9 mm)
 E_L (> 9 mm)



WS 005



FRZ -80°C to +100°C
ZZ up to +95 °C

ThermaSmart[®] Marine 4.0



Advantages

- Halogen-free product
- Consistent performance with aluminium vapour barrier
- Glue-free installation
- Mechanical strength
- Condensation-free system throughout its service life when installed by a qualified installer



polyolefin foam with
black alu foil



$\lambda = 0.034$ at 0°C
 $\lambda = 0.035$ at 10°C
 $\lambda = 0.038$ at 40°C



PASS IMO 2010 FTP
Code Annex 1 Part 5



$\mu \geq 21.000$ (tube)
 $\mu \geq 18.000$ (sheet)



-80°C to +95°C

ThermaCompact IS, IS10



Advantages

- Consistent performance – strong protective polymer coating and robust insulation material
- Easy cleaning due to smooth skin



closed-cell polyethylene foam with protective polymer coating



$\lambda = 0.040$ at 40°C



SBI B_L-s1 d0 (up to 13 mm)
E_L- (13-25 mm)



WS 005



up to +95°C

ThermaCompact TF



Advantages

- Consistent performance – strong protective polymer coating and robust material
- Effectively suppresses sounds generated in the installation



closed-cell polyethylene foam with protective polymer coating



up to 10 dBA (A)



E_L (up to 13 mm)
SBI B_L-s1 d0 (>13 mm)



up to +85 °C

Ultra M



Advantages

- Quick and easy installation
- Unique aesthetic appearance
- Easy cleaning due to embossed skin



cross-linked
polyethylene foam with
LDPE coating and zipper



$\lambda = 0.037$ at 40°C



E_L



WS01



-80 °C to +85 °C

OEM - customised solutions



We provide OEM solutions for:

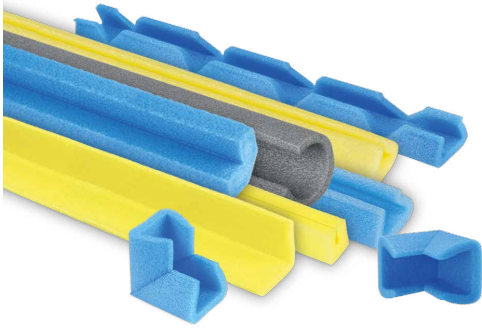
- Thermal insulation
- Condensation control
- Acoustic insulation
- Shock absorption
- Protection and packaging

Manufacturers in sectors such as automotive, food, furniture and technical equipment rely on Thermaflex for durable, high-quality customised solutions that meet specific technical and safety requirements.

We support OEM customers with practical advice on product integration, efficient installation and smooth implementation in production processes. Where needed, this can include co-development, engineering support and prefabricated solutions.

Our products are designed to meet demanding performance and compliance requirements. They can contribute to fire safety, contain no harmful substances, are fully recyclable and are often Cradle to Cradle Certified®.

Protection profiles



Advantages

- Shock resistance and mechanical strength
- Easy processing
- Lightweight, minimal volume
- Long service life
- Durability

Thermaflex protection profiles provide durable, shock-absorbing protection for products during handling, storage and transport. They are suitable for applications in furniture, mattresses, automotive, playgrounds and distribution.

Our foam solutions are available in standard forms such as sheets, tubes and profiles, and can be customised in specific shapes, sizes, thicknesses and colours. They are easy to process and support efficient integration into customer packaging or product protection concepts.

The material combines lightweight with strong mechanical strength to help protect against shocks, bumps, falls, moisture and temperature fluctuations. This supports safe transport, efficient storage and reduced damage risk.

ThermaRod



Advantages

- Halogen-free product
- Professional filling of construction gaps
- Flexible and easy in application
- Wide range of diameters
- Sealed cellular structure



filling space
in construction



water absorption
<1% after 168 h in water



prevents water vapour on
windows and balconies



up to +95 °C

ThermaSmart[®] ENEV



Advantages

- German GEG compliant product range
- Consistent performance - damage-free, robust insulation material
- Safety - excellent fire and smoke behaviour
- Fast fabrication of fitting insulation - welding technique up to inner diameter 42 mm



recyclable PE foam insulation



$\lambda = 0.034$ at 10°C
 $\lambda = 0.036$ at 30°C



SBI C_L-s1 d0



WS01



up to +95°C

ThermaSmart[®] ENEV-Q



Advantages

- German GEG compliant product range
- Consistent performance - damage-free, robust insulation material



recyclable thermoplastic foam insulation with yellow polyolefin skin



$\lambda = 0.040$ at 40°C



Class E_L

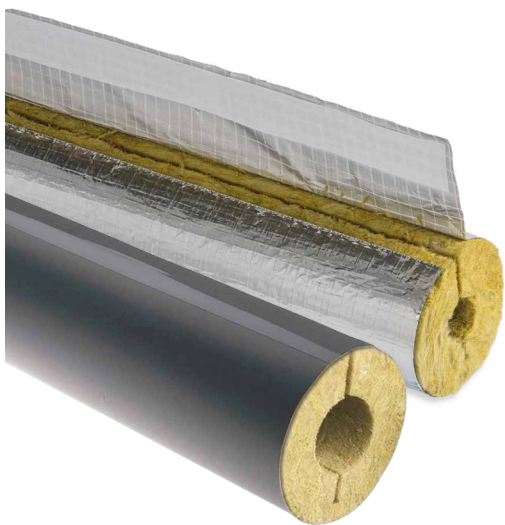


WS 005



up to +95°C

ThermaWool Alu & ThermaWool PVC



Advantages

- Temperature resistance up to 250°C
- Wall thickness from 20 to 100 mm
- High-quality finish
- Quick and easy installation
- Wool with PVC or alu cover or plain wool (without cover)



mineral wool tubes for thermal and acoustic insulation



Alu: $\lambda = 0.037$ at 40°C (≤ 40 mm)
Alu: $\lambda = 0.038$ at 40°C (≥ 40 mm)
PVC: $\lambda = 0.030$ at 40°C



Alu: A2_s-s1 d0
PVC: E_L



with alu foil: up to +250°C
with PVC foil: up to +140°C

ThermaPur



Advantages

- Temperature resistance to microbes and insects, as well as rot and decay
- Dimensional stability and accuracy of fit thanks to the automatic closure
- Protection against condensation and corrosion
- 100% HCFC and HFC-free



polyurethane foam insulation for pipes



$\lambda = 0.036$ at 40°C



E_L (tube)



B2



up to +130 °C

Alu sheet covering



Advantages

- Universally applicable system
- Excellent protection against mechanical damage
- Protects against the penetration of chemicals and UV rays
- Highly aesthetic design
- The riveted installation system guarantees that the insulation layer will not be damaged
- Zinc coverings & stainless steel are also available



aluminium sheet
system for insulation
protection



0.6 mm +/-0.03
0.8 mm +/-0.03
1.0 mm +/-0.04



0.6 mm - 1.62 kg/dm³
0.8 mm - 2.16 kg/dm³
1.0 mm - 2.70 kg/dm³



non-flammable



∞ ÷ 600

Specialised coatings



Advantages

- A four-ply laminate structure maintains high mechanical resistance to puncture and tearing
- High resistance to weather conditions
- Excellent UV and ozone resistance
- Guarantees 100% vapour tightness
- Lightweight and durable coating, fast and easy application
- Compliant with RoHS and REACH



universal self-adhesive UV-resistant
coating, silver, with vapour barrier



-80 °C to +95 °C

Heating cables



Advantages

- Solid protection of the installation against freezing
- Maintaining constant temperature of the medium
- Easy and quick assembly

Electric constant-rated heating cable designed to maintain the set temperature in the installation in the range of 0°C to + 40°C to protect the system against freezing.

Suitable for frost protection of fire mains, condensation drains, water service pipes and/or water metres, temporary water lines on building sites, water pipes in cowsheds, sprinkler systems, pumps, valves, outside water taps, water works on boats.

Tools & accessories



Complete solutions for quick assembly

Full range of accessories to simplify the assembly process. Tools & accessories ensure trouble-free performance for many years with a minimum of energy loss.

Toolbox

Set contains:

Steel dies, tape measure, clips, metribox template, glue, brush for glue, small knife, large knife, cap, installation instructions, DuctTape - grey, DuctTape - red.

Toolbag

Set contains:

The knife set, straight-edge paring knife (8 cm), whetstone, tape measure, outside calipers, folding ruler, compass scribing tool (300), compass scribing tool (150), white marker, brush for glue, straps for the knife set, squeegee blue



ThermaGlue

Adhesive designed for bonding all Thermaflex polyolefin-based insulation materials.




Heatplate


Innovative connection technology for Thermaflex insulation using heatplate for a clean, solid bond. Available in 110V and 230V.

Our projects

Princess Cruises cruise ship Discovery Princess

 Aboard Discovery Princess  ThermaSmart® Marine 4.0


 Condensation-free,
minimised energy loss

 Application:
Chilled water
and AC systems



Customised cryogenic freezer

 Austria  ThermaSmart® PRO

 Cost saving from top
performance and
minimal maintenance

 Application:
Refrigeration OEM



Lithuanian Armed Forces Air Force Base in Siauliai (NATO base)


 Siauliai,
Lithuania  ThermaSmart® PRO,
ThermaEco FRZ HF

 Energy savings and
prevention of condensation  Application:
Heating and cold water systems



City Brewery Jongens van de Wit

 's-Hertogenbosch,
the Netherlands  ThermaSmart® PRO


 Reduced 25% of
energy consumption


 Application:
Chilled water



"Astoria" sanatorium in Busko-Zdrój

 Busko-Zdrój,
Poland  ThermaEco FRZ

 Heat loss was thoroughly
minimised

 Application:
Heating networks



Resources & support

Access technical documentation, tools and support to help design, install and maintain Thermaflex insulation solutions.

Download centre

Find technical data sheets, brochures, certificates and case studies in one place.



Installation Manual

Product-specific manuals that support safe, compliant use and maintenance.

Insulation calculator

Online tools that support pipe sizing, energy calculations and insulation selection.



Training

Thermaflex installation training for installers.

Contact technical support

Our technical team is ready to support your projects and specific questions.





THERMAFLEX®

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Ready to explore tailored solutions?

Schedule a personal appointment with
our experts!



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