



ThermaSmart PRO

Insulating the future, from cradle to cradle

Table of Contents

- 01. WE, THERMAFLEX
- 02. OUR CONTRIBUTION
- 03. MARKETS
- 04. APPLICATIONS
- 05. SOLUTIONS, SYSTEMS & COMPONENTS
- 06. CERTIFICATIONS
- 07. THERMASMART PRO
- 08. GENERAL FEATURES & MATERIAL HEALTH
- 09. RECLAIM
- 10. TUBES
- 11. SELF-ADHESIVE
- 12. IN COIL
- 13. SHEET
- 14. TOOLS & ACCESSORIES
- 15. PREFABRICATED PARTS
- 16. CONNECTIONS
- 17. CASE STUDIES
- 18. LET'S CONNECT
- 19. CONTACT

01. WE, THERMAFLEX



Minimize the waste of energy, maximize the use of renewables

Societies accross the globe are in need of sustainable solutions for energy and water. Together with our stakeholders, we help build systems for future generations. In everything we do, we are inspired by nature. As it is always systemic, smart and efficient in its solutions.

1919
Wilhelmus Baars learns to harness the virtues of wood in a carpentry shop

1976
Thermaflex founded by Leendert Baars, based on polyolefine

technology

1987 International expansion under the 3rd generation, Gerrit-Jan Baars 1999 First process for **pre-insulating pipes** developed 2004
Start of polybutene pipe production

2015
New world record set in
DHC networks, connecting
an entire street in just 1 day

1951

Wilhelmus innovates with **cork**, nature's finest insulating technology

1983

Direct extrusion of polyolefines developed

1990

As the first company worldwide, Thermaflex switches completely to (H)CFC-free production 2003

Launch of Flexalen 600, the worlds' first circular pre-insulated piping system 2014

Proven sustainability with Cradle-to-Cradle certification and Environmental Product Declarations for various ranges

01. WE, THERMAFLEX





ISO 9001:2008

6 regions in the Thermaflex group have achieved ISO 9001 quality management certification for continuous quality improvements in its customer focus, management, and processes.

ISO 14001:2004

On top of that, both Thermaflex production locations in Europe have also achieved ISO 14001 certification through effective environmental management systems.



Thermaflex North-West Europe, Central Europe, and North-East Europe are Certified B Corporations, using business to bring social and environmental change. In 2015, the first was honored as 'Best for the Environment', scoring in the top 10% of all certified B Corps in this impact area. For this we were recognized by Forbes.

01. WE, THERMAFLEX

Our Philosophy

Taking care of energy and the environment

Energy and water are a necessity in the built environment. They are a basic right for everyone.

We have the knowledge and experience to provide systems to distribute these vital elements efficiently, and smartly. In a manner that is convincingly different and will serve society far into the future.

Today Thermaflex is a source of energy to many people. From the team that is running its every day operations to the business partners and customers with whom we share values and create smart energy saving solutions.



Our Inspiration

We are inspired by nature in the way that it provides protection without a depletion of resources. Always in full symbiotic harmony with its surroundings, creating a circular state of existence.

Our designs and systems contribute to the circular economy; they are recyclable and serve the transition to renewable energy.

Responsible processes demand a minimum of resources for maximum benefit.

At Thermaflex we like to think in solutions rather than in products. Our research and development aims at the specific needs of our customers and end-users. We build close relationships with our stakeholders, creating optimal solutions in cooperation and co-creation with each other.

Let's join forces to take care of...

Our resources

The growing scarcity of resources is one of the major challenges in the world today. We believe a solution can be found in the **circular economy.**

Our long term ambition is to reclaim all **materials** and close the loop. This requires a constant drive for improving efficiency, longevity and waste reduction for our systems as well as in our processes.

Our contribution to **water** scarcity and quality lies in delivering leakage-free systems for drinking water and/or sanitation purposes, and reducing and reusing water in our production facilities.



Our ecosystems

Taking care of our ecosystems, spanning generations, drives us to work together in symbiotic harmony. We aim for maximum benefit for all our stakeholders.

We develop maintenance-free and easy-to-install systems to connect demand for cooling & heating with supply, while lowering energy costs and contributing to green **communities**.

We can only be successful in our mission by working together with like-minded partners throughout the complete **value chain.**

Our climate

Our major aim is to reduce CO2 emissions by maximizing the use of renewables and minimize the waste of energy.

Renewable resources are often locally available, reducing dependency on external suppliers.

We facilitate the use of renewables in our operations wherever possible.

We are continuously improving the **energy performance** of our systems and solutions. In our own organization, in-house programs result in higher energy efficiency and operational excellence.

Residential



Building (for) the future: smart and sustainable homes



Single Family Houses Strike home with efficient convenience



Apartment Blocks
Sustainable building: a better
future for all



Rural Communities
Think local, heat local



Attached Houses
Bringing homes and heat together

Industry



Levers for change – energy efficiency as a key resource



Shipbuilding Industry
Set sail for tomorrow with smart and
sustainable maritime solutions



Food Industry
Nourishing ingredients for high
standard food production

Government & Municipality



Energy and sustainable development: an open door



Schools & Universities
Greater comfort for greater
learning

240,000

mWh of renewable energy enabled in 2015 which prevents the burning of

5,120 truckloads of coal











Our Impact

and saved

350,000 tons of CO2 in 2015 That's the equivalent absorbed by

17,500,000 trees

++++++++++++++

Commercial



Future-proofing your business: a sweet deal



Data Centers
Cool data = Safe data



Supermarkets Keep it fresh



Office Buildings
A comfortable workplace works
better



Shopping malls
Healthy shopping: wallet- friendly,
and eco-friendly solutions

Hospitality



Harmonizing comfort, capital and climate



Hotels
Where comfort meets savings



Thermal Centers

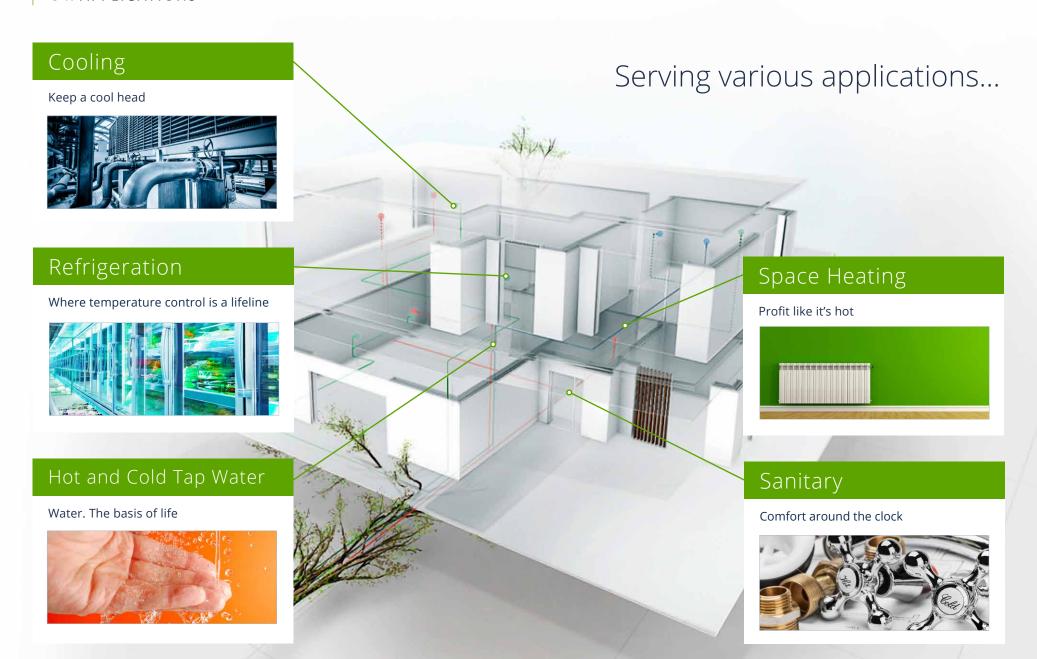
Hot rocks in a cool solution

A healthy and comfortable indoor environment: a basic living right...

Did you know...?



That 95% of our electricity purchased in Europe comes from renewable energy sources?



05. SOLUTIONS, SYSTEMS & COMPONENTS



Renovation
Closing the gap... and beyond



Expansion
Sustaining comfort for an expanding world



New construction
Breaking valuable new ground



Cooling & Chilled Water Insulation
Premium condensation
prevention with added bonus



Heating Insulation
Save your comfort,
comfort your savings



Tubes
A total insulation solution



Self-Adhesive Tubes Get smart, at full speed ahead



In coil
Now quality comes in a coil



Sheet We got you covered



Prefabricated Parts
Pre-built for success



Tools & Accessories
Assembly made easy

06. CERTIFICATIONS

Above and beyond industry standards

Choosing Thermaflex solutions ensures that you will comply in every respect with industry standards...

Securing LEED & BREEAM credits



ThermaSmart PRO has been developed in coordination with leading green building benchmarks. It sweeps most facets of design, construction, operation and maintenance according to LEED and BREEAM criteria - the two frontrunners in green building certification. You can check out the full categorical breakdown in the knowledge center of our website.

REACH, VOC and RoHS compliant



We fully commit ourselves to the protection of human health and environment. All Thermaflex components are risk-free and safe to use under any conditions in conformity with the Registration, Evaluation, Authorisation and Restriction of Chemicals by EU regulation (REACH), the Volatile Organic Compounds list (VOC), as well as the Restriction of Hazardous Substances (RoHS).

Excellent fire and smoke classification



- IMO FTP Code res. MSC.61(67) smoke generation according to ISO 5659-2 (1994)
- BS 476 part 7 class1 and part 6 class 0
- SBI BL, s1, d0 (Tubes)
- SBI B, s2, d0 (Sheet)
- UL 94-HF

... and even going above and beyond them, giving you a competitive advantage and a means to differentiate

Cradle to Cradle Certified™ Bronze



Our commitment to healthy environments and making scarce resources meet future demands has led us to achieve a 25% Cradle to Cradle CertifiedTM assortment. For Thermasmart PRO, we achieved Cradle to Cradle CertifiedTM Bronze, the world's only in technical insulation.

Environmental Product Declarations (EPDs)



Thermaflex provides transparency in all aspects of sustainability; whether it concerns production, material choice or product features. That is why we've adopted a foremost international standard that independently verifies and registers a transparent and comparable life-cycle story about the environmental impact of our components.

Environmentally-friendly production



The production of our insulation happens in our fully ISO 14001:2004 certified production sites. In our commitment to minimize environmental impact, this foremost certification ensures the use of effective environmental management systems for a responsible production.

For an overview of our certifications check out our knowledge centre at

www.thermaflex.com

07. THERMASMART PRO

ThermaSmart PRO

Insulating the future, from cradle to cradle

ThermaSmart PRO is a revolution in insulation, tackling all those challenges of efficient and sustainable building design. Our full range of components offers a complete insulation solution for domestic hot and cold water applications, securing safety, high performance and durability for decades to come.









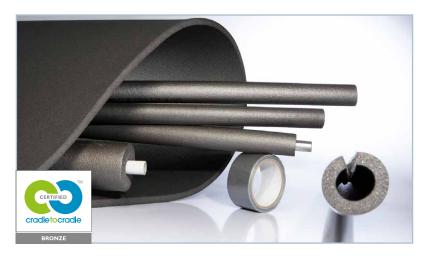
Hassle-free, and headache-free performance

ThermaSmart PRO is a range of efficient, and durable insulation components from high quality polyolefine foam. Its flexibility makes for a quick and easy, yet full-proof and aesthetic installation - even in the most difficult space conditions. The completely closed cell structure of the Polyolyfine material of ThermaSmart PRO minimizes energy loss, prevents vapor diffusion, which makes for a condensation-free and thus corrosion-free solution throughout its life cycle. On top of that, it also has a high resistance to mechanical damage, wide temperature ranges, and water permeation throughout the test of time.

No-compromise solution

ThermaSmart PRO excells in the latest European standards for fire protection, while ensuring minimal smoke production. As a safe and healthy material, it minimizes the production of toxic gases and flaming droplets. It is environmentally friendly, both in manufacture and in use. As the first, and only Cradle to Cradle CertifiedTM technical insulation, it also fully complies with our vision of a circular economy, and is 100% recyclable upon reclaim. Check out the Cradle to Cradle CertifiedTM Material Health certificate and Environmental Product Declarations (EPDs) in our knowledge center!

therma**smart** PRO



08. GENERAL FEATURES & MATERIAL HEALTH

General features



- Cradle to Cradle Certified™ Bronze
- 100% recyclable
- UL Certified Environmental Product Declaration (EPD) available



- Excellent flame extinguishing properties
- See component ranges for detailed fire class properties



- Produced without (H)CFC
- Complies to REACH
- Complies to VOC (Volatile Organic omponents)
- Complies to RoHS (Restriction of Hazardous Substances)



- Cradle to Cradle Certified™ Bronze
- CE system 1 certified (including 3rd party control)
- Bureau Veritas & Lloyds approved for shipbuilding



- Robust, yet flexible ThermoPlastic Elastomeric (TPE) foam
- Excellent insulation properties



Water

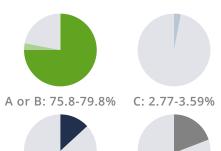
- Closed cell structure
- Excellent water vapor barrier

Material Health Bronze

Percentage of homogeneous materials assessed by weight

81-100%

Assessment ratings by weight



X: 9.37% GREY: 0-19%

% Homogeneous materials

Product optimization



| A or B | Optimal |
|--------|------------------------|
| С | Acceptable for use |
| Х | Targeted for phase out |
| GREY | Unknown identity |

- Cradle to Cradle Certified™ Banned List compliant
- ✓ Material Health optimization strategy developed

ThermaSmart PRO Reclaim

Waste does not exist

We believe in the circular economy. By design, our products, systems and solutions are modelled to nature's systemic processes, acting as nutrients that circulate in a healthy, safe environment – for generations to come. With the launch of our Reclaim program, we aim to close all loops, and eliminate waste wherever possible.





In our own manufacturing processes, we develop and improve operations and technologies to minimize waste, save and recycle energy and production waste, and prevent air, water, noise or any other pollution.

Reutilization

Our entire ThermaSmart PRO component range is 100% recyclable. Besides reclaiming assembly and end-of-life insulation waste, we also recycle all production waste back into our manufacturing process while maintaining the quality of the material.



Circular Product Design



Construction waste is one of the heaviest and most voluminous waste streams generated today. In the EU alone, it accounts for 25% - 30% of all waste generated. What to do with all this waste? We have a solution:

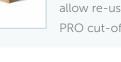




Inspired by this global problem, we've initiated a program to close the loop on all residual insulation from assembly, and recycle it to serve its original purpose. We've redesigned our boxes for tube insulation to allow re-use of all ThermaSmart PRO cut-offs

Operation

Our sustainable, maintenance-free systems significantly lower energy use, and make a valuable contribution to green buildings. The high mechanical strength, non-toxicity and condensation-free properties of our insulation makes for healthy, and sustainable performance over lifetime.



ThermaSmart PRO Tubes

A total insulation solution

ThermaSmart PRO Tube combines high performance, flexibility and maximum savings. It has been developed to provide a comfortable fit for wallet, environment and peace of mind in a quick and easy solution.







PROfessional design

ThermaSmart PRO tube insulation is an advanced insulation material made of high grade thermoplastic foam, ideal for heating, cooling and potable water applications. It prevents energy losses in pipes, minimizes flow noise and protects against mechanical damage. ThermaSmart PRO tube prevents the condensation typically found in domestic water or cooling pipes, ensuring corrosion-free, and thus headache-free systems. Key in its design is that the excellent properties are retained throughout the component life cycle. As a front runner in sustainable solutions, all our ThermaSmart Pro components are Cradle to Cradle Certified™ and carry both a Material Health certificate, as well as an Environmental Product Declaration - check it out in our knowledge center!

Universal application

ThermaSmart PRO tubes can be used for pre-insulation or in retrofit applications with Thermaflex glue, or easier yet, with a heat tool to make homogeneous Prefabricated bands and T-pieces. We offer installers the full package with energy savings calculation tools, toolkits and trainings to ensure a full-proof, and future-proof solution.



- Cradle to Cradle Certified™ Bronze Product Certificate
- Cradle to Cradle Certified™ Bronze Material Health Certificate
- CE system 1 certified (including 3rd party control)
- Wheelmark certification for shipbuilding



- SBI BL, s1, d0
- IMO FTP Code res. MSC.61(67) smoke generation (ISO 5659-2)
- UI 94-HF



Insulation

- Lambda 0.038 W/mK at 40°C (EN ISO 8497)
- Lambda 0.034 W/mK at 0°C (EN ISO 8497)

• Water vapor resistance M-value ≥ 10.000 (EN 13469)

• Values are degassed values (EN 14313)



Water

• 0.1 kg/m2 (EN 1609)



Service Temperature

- Wide service temperature range
- Minimum -80°C Maximum 95°C (EN 14707)



Availabilities

- Standard length: 2m
- Available in wall thickness: 6-30 mm
- Available in diameters: 12-114 mm
- Color: dark grey

Moving upward, we'll do our best to meet your wishes with continuous system innovations. For the most up-to-date info, please have a look on www.thermaflex.com

10. TUBES

| | | | | | | Thermasma | rt PRO Tube | S | | | | |
|-----|------------|--------------|---------|------------|-----------------------|-------------------|-------------|---------------|-----------------------|---------------------|-------|---------------|
| | Diame | ter of the p | oipe*** | | W | all Thickness E = | 9 mm | | W | all Thickness J = 1 | 3 mm | |
| C | Cu | | Fe | | | | | | | | | |
| DN | OD (mm) | Inches | DN | OD (mm) | Product code (NEW)* | Product code** | Code | meter/ box | Product code (NEW)* | Product code** | Code | meter/ box |
| 10 | Х | Х | Х | Х | Х | X | Х | Х | 3000-013012-000 (020) | 1813012 (B) | J-12 | 260 |
| Х | 15,0 | 1/4 | 8 | 13,5 | 3000-009015-000 (020) | 1809015 (B) | E-15 | 348 | 3000-013015-000 (020) | 1813015 (B) | J-15 | 240 |
| 15 | 18,0 | 3/8 | 10 | 17,2 | 3000-009018-000 (020) | 1809018 (B) | E-18 | 288 | 3000-013018-000 (020) | 1813018 (B) | J-18 | 200 |
| 20 | 22,0 | 1/2 | 15 | 21,3 | 3000-009022-000 (020) | 1809022 (B) | E-22 | 248 | 3000-013022-000 (020) | 1813022 (B) | J-22 | 172 |
| 25 | 28,0 | 3/4 | 20 | 26,9 | 3000-009028-000 (020) | 1809028 (B) | E-28 | 188 | 3000-013028-000 (020) | 1813028 (B) | J-28 | 134 |
| 32 | 35,0 | 1 | 25 | 33,7 | 3000-009035-000 (020) | 1809035 (B) | E-35 | 140 | 3000-013035-000 (020) | 1813035 (B) | J-35 | 108 |
| 40 | 42,0 | 1 1/4 | 32 | 42,4 | 3000-009042-000 (020) | 1809042 (B) | E-42 | 110 | 3000-013042-000 (020) | 1813042 (B) | J-42 | 90 |
| Х | 48,0 | 1 1/2 | 40 | 48,3 | 3000-009048-000 (020) | 1809048 (B) | E-48 | 84 | 3000-013048-000 (020) | 1813048 (B) | J-48 | 70 |
| 50 | 54,0 | Х | X | 54,0 | 3000-009054-000 (020) | 1809054 (B) | E-54 | 76 | 3000-013054-000 (020) | 1813054 (B) | J-54 | 64 |
| 50 | 57,0 | х | X | 57,0 | 3000-009057-000 (020) | 1809057 (B) | E-57 | 76 | 3000-013057-000 (020) | 1813057 (B) | J-57 | 58 |
| Х | X | 2 | 50 | 60,0 | 3000-009060-000 (020) | 1809060 (B) | E-60 | 70 | 3000-013060-000 (020) | 1813060 (B) | J-60 | 58 |
| Х | 64,0 | Х | X | 63,5 | 3000-009063-000 (020) | 1809063 (B) | E-63 | 68 | 3000-013063-000 (020) | 1813063 (B) | J-63 | 52 |
| Х | 70,0 | 2 1/4 | X | 70,0 | Х | X | Х | Х | 3000-013070-000 (020) | 1813070 (B) | J-70 | 44 |
| 65 | 76,1 | 2 1/2 | 65 | 76,1 | 3000-009076-000 (020) | 1809076 (B) | 76 | 46 | 3000-013076-000 (020) | 1813076 (B) | J-76 | 40 |
| 80 | 88,9 | 3 | 80 | 88,9 | X | × | Х | Х | 3000-013089-000 (020) | 1813089 (B) | J-89 | 32 |
| Х | X | 3 1/2 | X | 101,6 | X | X | Х | X | 3000-013102-000 (020) | 1813102 (B) | J-102 | 26 |
| 100 | 108,0 | 3 3/4 | 100 | 108,0 | Х | X | Х | Х | 3000-013108-000 (020) | 1813108 (B) | J-108 | 24 |
| 100 | 114,0 | 4 | 100 | 114,3 | X | X | Х | Х | 3000-013114-000 (020) | 1813114 (B) | J-114 | 22 |

^{*)} Index (NEW)
**) Index

xxxx-xxxxxx (020) xxxxxxx (B) also for Sanitary & Heating - pre-cut also for Sanitary & Heating- pre-cut



^{***)} Tolerance according to: EN14313:2015

10. TUBES

| | | | | | | | | Therm | asmart PRO Tubes - S | iteel | | | | | | |
|-----|------------|-----------|--------|------------|-----------------------|----------------------|-------|---------------|-----------------------|------------------|-------|---------------|-----------------------|------------------|-------|---------------|
| | iamete | er of the | e pipe | *** | Wall Thi | ckness N = 19 mi | m | | Wall Thi | ickness P = 25 m | m | | Wall Th | ickness S = 30 n | nm | |
| | Cu | | Fe | | | | | | | | | | | | | |
| DN | OD (mm) | Inches | DN | OD (mm) | Product code (NEW)* | Product code** | Code | meter/ box | Product code (NEW)* | Product code** | Code | meter/ box | Product code (NEW)* | Product code** | Code | meter/ box |
| 10 | 15,0 | 1/4 | 8 | 13,5 | 3000-019015-000 (020) | 1820015 (B) | N-15 | 130 | 3000-025015-000 (020) | 1825015 (B) | P-15 | 90 | Х | × | Х | × |
| 15 | 18,0 | 3/8 | 10 | 17,2 | 3000-019018-000 (020) | 1820018 (B) | N-18 | 118 | 3000-025018-000 (020) | 1825018 (B) | P-18 | 90 | Х | X | Х | Х |
| 20 | 22,0 | 1/2 | 15 | 21,3 | 3000-019022-000 (020) | 1820022 (B) N-22 100 | | 100 | 3000-025022-000 (020) | 1825022 (B) | P-22 | 72 | 3000-030022-000 (020) | 1830022 (B) | S-22 | 60 |
| 25 | 28,0 | 3/4 | 20 | 26,9 | 3000-019028-000 (020) | 1820028 (B) | N-28 | 90 | 3000-025028-000 (020) | 1825028 (B) | P-28 | 66 | 3000-030028-000 (020) | 1830028 (B) | S-28 | 58 |
| 32 | 35,0 | 1 | 25 | 33,7 | 3000-019035-000 (020) | 1820035 (B) | N-35 | 66 | 3000-025035-000 (020) | 1825035 (B) | P-35 | 54 | 3000-030035-000 (020) | 1830035 (B) | S-35 | 46 |
| 40 | 42,0 | 1 1/4 | 32 | 42,4 | 3000-019042-000 (020) | 1820042 (B) | N-42 | 62 | 3000-025042-000 (020) | 1825042 (B) | P-42 | 46 | 3000-030042-000 (020) | 1830042 (B) | S-42 | 40 |
| X | 48,0 | 1 1/2 | 40 | 48,3 | 3000-019048-000 (020) | 1820048 (B) | N-48 | 48 | 3000-025048-000 (020) | 1825048 (B) | P-48 | 42 | 3000-030048-000 (020) | 1830048 (B) | S-48 | 34 |
| 50 | 54,0 | × | Х | 54,0 | 3000-019054-000 (020) | 1820054 (B) | N-54 | 46 | 3000-025054-000 (020) | 1825054 (B) | P-54 | 38 | 3000-030054-000 (020) | 1830054 (B) | S-54 | 28 |
| 50 | 57,0 | × | Х | 57,0 | 3000-019057-000 (020) | 1820057 (B) | N-57 | 40 | 3000-025057-000 (020) | 1825057 (B) | P-57 | 36 | X | X | Х | X |
| X | X | 2 | 50 | 60,0 | 3000-019060-000 (020) | 1820060 (B) | N-60 | 40 | 3000-025060-000 (020) | 1825060 (B) | P-60 | 34 | 3000-030060-000 (020) | 1830060 (B) | S-60 | 26 |
| X | 64,0 | Х | Х | 63,5 | 3000-019063-000 (020) | 1820063 (B) | N-63 | 40 | 3000-025063-000 (020) | 1825063 (B) | P-63 | 32 | 3000-030063-000 (020) | 1830063 (B) | S-63 | 24 |
| X | 70,0 | 2 1/4 | Х | 70,0 | 3000-019070-000 (020) | 1820070 (B) | N-70 | 34 | 3000-025070-000 (020) | 1825070 (B) | P-70 | 28 | Х | X | Х | Х |
| 65 | 76,1 | 2 1/2 | 65 | 76,1 | 3000-019076-000 (020) | 1820076 (B) | N-76 | 28 | 3000-025076-000 (020) | 1825076 (B) | P-76 | 26 | 3000-030076-000 (020) | 1830076 (B) | S-76 | 20 |
| 80 | 88,9 | 3 | 80 | 88,9 | 3000-019089-000 (020) | 1820089 (B) | N-89 | 24 | 3000-025089-000 (020) | 1825089 (B) | P-89 | 20 | 3000-030089-000 (020) | 1830089 (B) | S-89 | 18 |
| Х | Х | 3 1/2 | X | 101,6 | 3000-019102-000 (020) | 1820102 (B) | N-102 | 20 | 3000-025102-000 (020) | 1825102 (B) | P-102 | 18 | Х | X | Х | Х |
| 100 | 108,0 | 3 3/4 | 100 | 108,0 | 3000-019108-000 (020) | 1820108 (B) | N-108 | 18 | 3000-025108-000 (020) | 1825108 (B) | P-108 | 16 | X | X | Х | X |
| 100 | 114,0 | 4 | 100 | 114,3 | 3000-019114-000 (020) | 1820114 (B) | N-114 | 18 | 3000-025114-000 (020) | 1825114 (B) | P-114 | 14 | 3000-030114-000 (020) | 1830114 (B) | S-114 | 10 |

^{*)} Index (NEW) xxxx-xxxxxx (020 also for Sanitary & Heating - pre-cut hodex xxxxxxx (B) also for Sanitary & Heating- pre-cut



^{***)} Tolerance according to: EN14313:2015

10. TUBES

| | | | Thermasmart PRC | Tubes - Plastic | : | | | | | |
|-----|-------------------|-------|-----------------------|------------------|---------|---------------|-----------------------|-----------------|-----------|---------------|
| | Nominal dimension | | Wall T | hickness E = 9 i | mm | | Wall T | hickness J = 13 | mm | |
| DN | OD | inch. | Product code (NEW)* | Product code** | Code | meter/ box | Product code (NEW)* | Product code** | Code | meter/ box |
| 12 | 16 | 1/2 | 3000-009015-000 (020) | 1809015 (B) | E-15-16 | 348 | 3000-013015-000 (020) | 1813015 (B) | J-15-16 | 240 |
| 15 | 20 | 1/2 | 3000-009020-000 (020) | 1809020 (B) | E-20 | 248 | 3000-013020-000 (020) | 1813020 (B) | J-20 | 180 |
| 20 | 25 | 3/4 | 3000-009025-000 (020) | 1809025 (B) | E-25-27 | 200 | 3000-013025-000 (020) | 1813025 (B) | J-25-27 | 152 |
| 25 | 32 | 1 | 3000-009032-000 (020) | 1809032 (B) | E-32 | 140 | 3000-013032-000 (020) | 1813032 (B) | J-32 | 116 |
| 32 | 40 | 1 1/4 | 3000-009040-000 (020) | 1809040 (B) | E-40 | 110 | 3000-013040-000 (020) | 1813040 (B) | J-40 | 94 |
| 40 | 50 | 1 1/2 | 3000-009050-000 (020) | 1809050 (B) | E-50-51 | 80 | 3000-013050-000 (020) | 1813050 (B) | J-50-51 | 70 |
| 50 | 63 | 2 | 3000-009063-000 (020) | 1809063 (B) | E-63-64 | 68 | 3000-013063-000 (020) | 1813063 (B) | J-63-64 | 52 |
| 65 | 75 | 2 1/2 | 3000-009076-000 (020) | 1809076 (B) | E-75-76 | 46 | 3000-013076-000 (020) | 1813076 (B) | J-75-76 | 40 |
| 80 | 90 | 3 | X | х | X | X | 3000-013089-000 (020) | 1813089 (B) | J-89-90 | 32 |
| 100 | 110 | 4 | х | Х | Х | Х | 3000-013108-000 (020) | 1813108 (B) | J-108-110 | 24 |

| | | | | | Thermasmart PRC | Tubes - Plasti | С | | | | | |
|----------------------------|-----------------------|----------------|-----------|---------------|-----------------------|----------------|-----------|---------------|-----------------------|-------------------|-----------|---------------|
| | Wall Th | ickness N = 20 | mm | | Wall Th | ickness P = 25 | mm | | Wall Th | nickness S = 30 n | nm | |
| Nominal dimension OD | Product code (NEW)* | Product code** | Code | meter/ box | Product code (NEW)* | Product code** | Code | meter/ box | Product code (NEW)* | Product code** | Code | meter/ box |
| 16 | 3000-019015-000 (020) | 1820015 (B) | N-15-16 | 130 | 3000-025015-000 (020) | 1825015 (B) | P-15-16 | 90 | 3000-030015-000 (020) | 1830015 (B) | S-15-16 | 70 |
| 20 | 3000-019020-000 (020) | 1820020 (B) | N-20 | 108 | 3000-025020-000 (020) | 1825020 (B) | P-20 | 76 | 3000-030022-000 (020) | 1830020 (B) | S-20 | 62 |
| 25 | 3000-019025-000 (020) | 1820025 (B) | N-25-27 | 94 | 3000-025025-000 (020) | 1825025 (B) | P-25-27 | 70 | 3000-030025-000 (020) | 1830025 (B) | S-25-27 | 58 |
| 32 | 3000-019032-000 (020) | 1820032 (B) | N-32 | 68 | 3000-025032-000 (020) | 1825032 (B) | P-32 | 56 | 3000-030032-000 (020) | 1830032 (B) | S-32 | 46 |
| 40 | 3000-019040-000 (020) | 1820040 (B) | N-40 | 64 | 3000-025040-000 (020) | 1825040 (B) | P-40 | 48 | 3000-030040-000 (020) | 1830040 (B) | S-40 | 42 |
| 50 | 3000-019050-000 (020) | 1820050 (B) | N-50-51 | 48 | 3000-025050-000 (020) | 1825050 (B) | P-50-51 | 40 | 3000-030050-000 (020) | 1830050 (B) | S-50 | 34 |
| 63 | 3000-019063-000 (020) | 1820063 (B) | N-63-64 | 40 | 3000-025063-000 (020) | 1825063 (B) | P-63-64 | 32 | 3000-030063-000 (020) | 1830063 (B) | S-63-64 | 24 |
| 75 | 3000-019076-000 (020) | 1820076 (B) | N-75-76 | 28 | 3000-025076-000 (020) | 1825076 (B) | P-75-76 | 26 | 3000-030076-000 (020) | 1830076 (B) | S-75-76 | 20 |
| 90 | 3000-019089-000 (020) | 1820089 (B) | N-89-90 | 24 | 3000-025089-000 (020) | 1825089 (B) | P-89-90 | 20 | 3000-030089-000 (020) | 1830089 (B) | S-89-90 | 18 |
| 110 | 3000-019108-000 (020) | 1820108 (B) | N-108-110 | 18 | 3000-025108-000 (020) | 1825108 (B) | P-108-110 | 16 | 3000-030108-000 (020) | 1830108 (B) | S-108-110 | 12 |

*) Index (NEW)
**) Index

xxxx-xxxxxx (020) xxxxxxxx(B) also for Sanitary & Heating - pre-cut also for Sanitary & Heating - pre-cut



11. SELF-ADHESIVE

ThermaSmart PRO tubes Self-Adhesive

Get smart, at full speed ahead

From the wide range of ThermaSmart PRO, our tube insulation with self-adhesive seam is for those who have no time to waste! A quick pull of the adhesive band before sticking the sides together will secure each flexible and recyclable meter of insulation in just a few seconds, so that you can start saving straight away.







A safe bet

Fast-track your smart energy transition to a secure and energy-efficient solution with minimal costs of installation, and above all, energy. As a front runner in sustainable solutions, all our ThermaSmart PRO are Cradle to Cradle Certified™ products and carry a Environmental Product Declaration certificate.



- Cradle to Cradle Certified™ Bronze Product Certificate
- Cradle to Cradle CertifiedTM Bronze Material Health Certificate
- CE system 1 certified (including 3rd party control)
- Wheelmark certification for shipbuilding



- SBI BL, s1, d0
- IMO FTP Code res. MSC.61(67) smoke generation (ISO 5659-2)
- UI 94-HF



- Insulation
- Lambda 0.038 W/mK at 40°C (EN ISO 8497)
- Lambda 0.034 W/mK at 0°C (EN ISO 8497)
- Values are degassed values (EN 14313)



- Water
- Water vapor resistance M-value > 10.000 (EN 13469)
- 0.1 kg/m2 (EN 1609)



- Service Temperature
- Wide service temperature range
- Minimum -80°C Maximum 95°C (EN 14707)



- Standard length: 2m
- Available in wall thickness: 9-13 mm
- Available in diameters: 6 60mm
- Color: dark grey

Moving upward, we'll do our best to meet your wishes with continuous system innovations. For the most up-to-date info, please have a look on www.thermaflex.com

11. SELF-ADHESIVE

| | | | | | | | The | rmasmaı | rt PRO - Self Adhesiv | /e | | | | | | |
|----|------------|--------|--------|------------|--------------------|----------------|------|---------------|-----------------------|-----------------|------|---------------|--------------------|---------------|------|---------------|
| | Diamete | of the | pipe * | ** | Wall T | hickness E = 9 | mm | | Wall Th | nickness J = 13 | mm | | Wall thi | ckness N = 19 | mm | |
| | Cu | | Fe | | | | | | | | | | | | | |
| DN | OD (mm) | Inches | DN | OD (mm) | Product code (NEW) | Product code | Code | meter/ box | Product code (NEW) | Product code | Code | meter/ box | Product code (NEW) | Product code | Code | meter/ box |
| 10 | Х | Х | Х | X | 3000-009012-010 | 1809012BSA | E-12 | 360 | 3000-013012-010 | 1813012BSA | J-12 | 260 | Х | Х | Х | Х |
| Χ | 15,0 | 1/4 | 8 | 13,5 | 3000-009015-010 | 1809015BSA | E-15 | 348 | 3000-013015-010 | 1813015BSA | J-15 | 240 | 3000-019015-010 | 1820015BSA | N-15 | 130 |
| 15 | 18,0 | 3/8 | 10 | 17,2 | 3000-009018-010 | 1809018SA | E-18 | 288 | 3000-013018-010 | 1813018BSA | J-18 | 200 | 3000-019018-010 | 1820018BSA | N-18 | 118 |
| 20 | 22,0 | 1/2 | 15 | 21,3 | 3000-009022-010 | 1809022BSA | E-22 | 248 | 3000-013022-010 | 1813022BSA | J-22 | 172 | 3000-019022-010 | 1820022BSA | N-22 | 100 |
| 25 | 28,0 | 3/4 | 20 | 26,9 | 3000-009028-010 | 1809028BSA | E-28 | 188 | 3000-013028-010 | 1813028BSA | J-28 | 134 | 3000-019028-010 | 1820028BSA | N-28 | 90 |
| 32 | 35,0 | 1 | 25 | 33,7 | 3000-009035-010 | 1809035BSA | E-35 | 140 | 3000-013035-010 | 1813035BSA | J-35 | 108 | 3000-019035-010 | 1820035BSA | N-35 | 66 |
| 40 | 42,0 | 1 1/4 | 32 | 42,4 | 3000-009042-010 | 1809042BSA | E-42 | 110 | 3000-013042-010 | 1813042BSA | J-42 | 90 | 3000-019042-010 | 1820042BSA | N-42 | 62 |
| Χ | 48,0 | 1 1/2 | 40 | 48,3 | 3000-009048-010 | 1809048BSA | E-48 | 84 | 3000-013048-010 | 1813048BSA | J-48 | 70 | 3000-019048-010 | 1820048BSA | N-48 | 48 |
| 50 | 54,0 | Х | Х | 54,0 | 3000-009054-010 | 1809054BSA | E-54 | 76 | 3000-013054-010 | 1813054BSA | J-54 | 64 | 3000-019054-010 | 1820054BSA | N-54 | 46 |
| 50 | 57,0 | Х | Χ | 57,0 | Х | Х | Х | Х | 3000-013057-010 | 1813057BSA | J-57 | 58 | X | × | Х | X |
| Χ | Х | 2 | 50 | 60,3 | Х | X | Х | Х | 3000-013060-010 | 1813060BSA | J-60 | 58 | 3000-019060-010 | 1820060BSA | N-60 | 40 |

^{***)} Tolerance according to: EN14313:2015



ThermaSmart PRO in coil

Now quality comes in a coil

Coiled ThermaSmart PRO is the perfect complement to two meter pipe sections. This highly-flexible insulation is especially effective when ease of transport and installation is an issue since it is available in a relatively small package.









As versatile as it is convenient

ThermaSmart PRO tube insulation in coil is an advanced insulation material made of thermoplastic foam that is stronger than other traditional elastomers. Its closed cell structure remains flexible within the temperature range of -80 °C to + 95 °C. It also provides excellent insulation properties and meets stringent fire classifications. ThermaSmart PRO tubes can be used in heating, ventilation, air conditioning and cooling applications. It can also be used for pre-insulation.

Help for installers

Thermaflex offers installers energy savings calculation tools that save energy, optimize insulation thickness and prevent condensation. Tools and trainings can also be available in your region, contact us to find out more!



- Cradle to Cradle Certified™ Bronze Product Certificate
- Cradle to Cradle Certified™ Bronze Material Health Certificate
- CE system 1 certified (including 3rd party control)
- Wheelmark certification for shipbuilding



- SBI BL, s1, d0
- IMO FTP Code res. MSC.61(67) smoke generation (ISO 5659-2)
- UL 94-HF



Insulation

- Lambda 0.038 W/mK at 40°C (EN ISO 8497)
- Lambda 0.034 W/mK at 0°C (EN ISO 8497)
- Values are degassed values (EN 14313)



Water





Service Temperature

- Water vapor resistance M-value ≥ 10.000 (EN 13469)
- 0.1 kg/m2 (EN 1609)
- Wide service temperature range
- Minimum -80°C Maximum 95°C (EN 14707)



Availabilities

- Standard length: 2m
- Available in wall thickness: 6-13 mm
- Available in diameters: 6-28 mm
- Color: dark grey

Moving upward, we'll do our best to meet your wishes with continuous system innovations. For the most up-to-date info, please have a look on www.thermaflex.com

12. IN COIL

| | | | | | | | | Thermas | smart PRO - In Coil | | | | | | | |
|----|------------|----------|-------|------------|--------------------|---------------|------|---------------|---------------------|---------------|------|-----|--------------------|-----------------|------|-----|
| | Diamete | r of the | pipe* | ** | Wall Th | ickness C = 6 | mm | | Wall Th | ickness E = 9 | mm | | Wall thi | ckness J = 13 r | nm | |
| | Cu | | Fe | | | | | . , | | | | | | | | |
| DN | OD (mm) | Inches | DN | OD (mm) | Product code (NEW) | Product code | Code | meter/ box | Product code (NEW) | Product code | Code | box | Product code (NEW) | Product code | Code | box |
| 4 | Х | Х | Х | Х | 3100-006006-000 | 1806006SC | C-6 | 50 | Х | × | Х | Х | Х | Х | Х | X |
| 6 | 8 | Х | Х | X | 3100-006008-000 | 1806008SC | C-8 | 48 | 3100-009008-000 | 1809008SC | E-8 | 37 | X | Х | Х | X |
| 8 | 10,0 | 1/8 | 6 | 10,2 | 3100-006010-000 | 1806010SC | C-10 | 46 | 3100-009010-000 | 1809010SC | E-10 | 34 | 3100-013010-000 | 1813010SC | J-10 | 19 |
| 10 | 12,0 | Х | Χ | Х | 3100-006012-000 | 1806012SC | C-12 | 40 | 3100-009012-000 | 1809012SC | E-12 | 31 | 3100-013012-000 | 1813012SC | J-12 | 18 |
| Х | 14,0 | 1/4 | 8 | 13,5 | 3100-006015-000 | 1806015SC | C-15 | 38 | 3100-009015-000 | 1809015SC | E-15 | 27 | 3100-013015-000 | 1813015SC | J-15 | 17 |
| 15 | 18,00 | 3/8 | 10 | 17,2 | 3100-006018-000 | 1806018SC | C-18 | 30 | 3100-009018-000 | 1809018SC | E-18 | 23 | 3100-013018-000 | 1813018SC | J-18 | 15 |
| 20 | 22,00 | 1/2 | 15 | 21,3 | 3100-006022-000 | 1806022SC | C-22 | 23 | 3100-009022-000 | 1809022SC | E-22 | 19 | 3100-013022-000 | 1813022SC | J-22 | 14 |
| 25 | 28,00 | 3/4 | 20 | 26,9 | 3100-006028-000 | 1806028SC | C-28 | 20 | 3100-009028-000 | 1809028SC | E-28 | 14 | 3100-013028-000 | 1813028SC | J-28 | 10 |

^{***)} Tolerance according to: EN14313:2015



ThermaSmart PRO Sheet

We got you covered

ThermaSmart PRO sheet is the material of choice for owners and installers across the globe who seek excellent and durable performance combined with quick and easy installation. Its unique health and sustainable properties make it the go-to product for anyone thinking ahead of time – something none of your stakeholders will ever regret.







Play it safe

ThermaSmart PRO sheet meets today's most stringent demands when it comes to the efficient insulation of large surface areas. The wide temperature ranges and excellent insulation value make it ideal for minimizing energy losses in Heating, Ventilation, Cooling and Refrigeration over building lifetime. For cooling, the unparalleled water vapor diffusion barrier eliminates the risk of condensation and subsequent corrosion or material deterioration headaches.

The excellent mechanical strengths measured in tear– and puncture resistance make ThermaSmart PRO also the ideal protection for your pipes, fittings, valves, compressors, heat exchangers, etc. ThermaSmart PRO also ensures an optimal protection of human health. Its high fire safety standards and minimal smoke production make sure building occupants can safely leave their building, free of any health hazards.



- Cradle to Cradle Certified™ Bronze Product Certificate
- Cradle to Cradle Certified™ Bronze Material Health Certificate
- CE system 1 certified (including 3rd party control)
- Wheelmark certification for shipbuilding



- SBI B. s2. d0
- IMO FTP Code res. MSC.61(67) smoke generation (ISO 5659-2)
- UL 94-HF



Insulation



Water



Service Temperature

- Lambda 0.038 W/mK at 40°C (EN 12664)
- Lambda 0.034 W/mK at 0°C (EN 12664)
- Values are degassed values (EN 14313)
- Water vapor resistance M-value > 5,300 (EN 13469)
- 0.1 kg/m2 (EN 1609)
- Wide service temperature range
- Minimum -80°C Maximum 95°C (EN 14707)



• Available in thickness:

7.5 mm - 10 mm - 13 mm - 19 mm - 25 mm

• Available in width:

50 cm - 60 cm - 100 cm - 120 cm

- Color: dark grey
- Variations upon request

Moving upward, we'll do our best to meet your wishes with continuous system innovations. For the most up-to-date info, please have a look on www.thermaflex.com

13. SHEET

| | | | | | | | Thermasmart PRO | - Sheet | | | | | | | |
|-------|-----------------|-----------|-----|-----------------|-------------|-----|-----------------|-------------|----|-----------------|-------------|----|-----------------|------------|----|
| | Wall Thicknes | s C = 7,5 | mm | Wall Thickne | ss C = 10 n | nm | Wall Thicknes | ss C = 13 m | m | Wall Thickne | ss C = 19 m | ım | Wall Thickne | ss C = 25 | mm |
| Width | | | m² | Product code | Unit | m² | Product code | Unit | m² | Product code | Unit | m² | Product code | Unit | m² |
| 50 | X | Х | Х | Х | Х | Х | 3200-013050-601 | Plates | 9 | 3200-019050-601 | Plates | 7 | 3200-025050-601 | Plates | 5 |
| 100 | 3200-007100-004 | Roll | 100 | 3200-010100-004 | Roll | 104 | 3200-013100-004 | Roll | 78 | 3200-019100-004 | Roll | 52 | 3200-025100-004 | Roll | 39 |
| 100 | X | Х | Х | 3200-010100-204 | Short Roll | 10 | 3200-013100-204 | Short Rolls | 8 | 3200-019100-204 | Short Rolls | 6 | 3200-025100-204 | Short Roll | 4 |

| | | | | | | Therma | asmart PRO - Sheet | Self Adhes | ive | | | | | | |
|-------|-----------------|-----------|-----|-----------------|-------------|--------|--------------------|-------------|-----|-----------------|--------------|----|-----------------|------------|----|
| | Wall Thicknes | s C = 7,5 | mm | Wall Thicknes | ss C = 10 n | nm | Wall Thickne | ss C = 13 m | m | Wall Thickne | ess C = 19 m | ım | Wall Thickne | ss C = 25 | mm |
| Width | | | m² | Product code | Unit | m² | Product code | Unit | m² | Product code | Unit | m² | Product code | Unit | m² |
| 50 | Х | Х | Х | Х | Х | Х | 3200-013050-701 | Plates | 9 | 3200-019050-701 | Plates | 7 | 3200-025050-701 | Plates | 5 |
| 100 | 3200-007100-104 | Roll | 100 | 3200-010100-104 | Roll | 104 | 3200-013100-104 | Roll | 78 | 3200-019100-104 | Roll | 52 | 3200-025100-104 | Roll | 39 |
| 100 | X | X | X | 3200-010100-304 | Short Roll | 10 | 3200-013100-304 | Short Rolls | 8 | 3200-019100-304 | Short Rolls | 6 | 3200-025100-304 | Short Roll | 4 |

ThermaSmart PRO Tools & Accessories

Assembly made easy

When you choose the right insulation for your project, you take the first step toward success. The next step is correct assembly. It's important to trim and glue your work for achieving the best results. Uneven edges can lead to large losses of both energy and money. So it pays to master both knife and glue skills.









The right accessories

To make installation even easier we also offer a range of accessories to simplify the assembly process. Our installation toolbox includes tools that let you easily perform all installation tasks. These tools include liners, dies, clips, template, glue, brushes, knives and more. Our accessories ensure trouble-free performance for many years with a minimum of energy loss.

Advantages:

- A complete selection of proven accessories
- Ease of installation to save time
- Warranty
- Safe to use
- Attractive aesthetics
- High quality tools
- Complete toolboxes



The right cut

Precisely cut edges are the key to proper installation of tubes on your pipes. A Thermaflex knife gives you a precise, reliable and fast cut without jagged edges. We build our knife with a special handle shape to ensure a safe and easy cut.



The right glue

Gluing the cut edges is an equally important step in installation since it directly affects durability and trouble-free operation. Thermaflex glues dry quickly and joins the two cut edges perfectly. Once dry they also exhibit self-extinguishing properties.





Have it look great! For exterior applications, the Thermapaint can be applied. The standard color is white but different colors can be provided upon request. The extreme elasticity of the paint will avoid cracks.

The right protection

Protect it from the sun! The Thermapaint is a perfect protection against UV radiations. Ideal for exterior applications.

The right support



For pipe supports, we offer Phenblox pipe hangers. The phenolic insulation offers excellent insulation value, while the bore coating prevents pipe corrosion and condensation drip from cooling systems. The load bearing insulation ring with a steel clamp makes for a perfect fitting, and is compatible with all clamps.

| Product code (NEW) | Product code | Product | Sales measurement | meter/ box |
|--------------------|--------------|--|----------------------|---------------|
| 3800-000000-000 | 8019002 | Toolbox | package | 1 |
| 3701-050015-100 | 8002003 | ThermaTape TS PRO 3mm x 50mm x 15m | 1 roll = 15 m | 10 |
| 3701-048050-200 | 8012006 | Duct Tape grey 48mm x 50mm | 1 roll = 50 m | 24 |
| 3701-048009-200 | 8012005 | Duct Tape grey 48mm x 9mm | 1 roll = 9 m | 54 |
| 3700-000250-000 | 8001002 | ThermaGlue (0,25 L) | 1 can = 0,25 l | 1 |
| 3700-001000-000 | 8001001 | ThermaGlue (1 L) | 1 can = 1 l | 12 |
| 3700-020000-000 | 8001010 | ThermaGlue (20L) | 1 can = 20 l | 1 |
| 3801-000000-000 | 8019007 | Gluepump | 1 piece | 1 |
| 3801-000011-110 | 8019008 | Brushes 11 mm | 1 piece | 1 |
| 3801-000017-120 | 8019009 | Brushes 17 mm | 1 piece | 1 |
| 3800-000000-500 | 8019001 | Template angle Metri box - internal width of template 12 cm | 1 piece | 1 |
| 3802-000250-100 | 8019003 | Knife | 1 piece | 1 |
| 3802-000000-000 | 8019017 | Knifeset | package | 1 |

NEW!

NEW & IMPROVED PRO Toolbox coming soon!



By professionals, for professionals

In close cooperation with insulation professionals around the world, we have completely upgraded our toolbox to perfectly answer to your needs. The PRO Toolbox contains only top-grade equipment of high, and ever-lasting utility, making sure you can get the job done as quickly, safely and efficiently as possible.

Phenblox pipe hangers Keep it steady

For pipe supports, we offer Phenblox pipe hangers. The phenolic insulation offers excellent insulation value, while the bore coating prevents pipe corrosion and condensation drip from cooling systems. The load bearing insulation ring with a steel clamp makes for a perfect fitting, and is compatible with all clamps.



IH 126K Phenolic Insulation Block

For Steel, Copper and Plastic pipe

- Manufactured from High Density Phenolic Foam
- Self-adhesive closure tab
- Stepped joint faces
- Negligible water absorption
- Does not contain CFC's and HCFC's



BIS 2S clamp

M8/10 15 - 169 mm

- 2 screw Steel clamp
- Screws secured with anti-loss washer
- Zinc plated finish



BIS HD500 clamp (1000)

M8/10 - M10/12 15 - 227 mm

M16 159 - 509 mm

- Heavy Duty
- 2 screw Steel clamp secured with anti-loss washer
- BIS UltraProtect® 1000 system
- Inside and Outside applicable



- Bore coating eradicates any possibility of pipe corrosion on copper pipes
- Stepped joint faces to ensure vapour seal and accurate location
- Guaranteed compatibility with clamps
- Best available thermal insulation properties
- Excellent chemical resistance
- Cell structure resists moisture absorption and mould
- More cost effective than wood, calcium silicate or foam glass due to higher insulation value
- Class '0' fire rated



Specific characteristics

- Insulation rings
- Foil covering
- Metal spreader plate above 50 Nb available in standard insulation thickness: 15, 20, 25 and 30 mm
- Made in accordance with our ISO 9001:2008 approval



Technical characteristics

- Manufactured from high density Phenolic Foam
- < 159 mm OD pipe 80 kg/m3
- > 168 mm OD pipe 120 kg/m3
- Free from CFC's and HCFC's
- Temperature resistance from -50°C to +110°C
- Class 'O' fire rated to BS 476/7
- 5% smoke emission to BS 5111
- Negligible water absorption
- Ignitability BS476 Pt5 Class 'P'
- K value 0,030 to 0,032 W/m C at 10°C

| Pipehanger bl | ock | Pipehanger C | lamp | Pipehanger bl | ock | Pipehanger C | lamp | Pipehanger bl | ock | Pipehanger (| lamp | Pipehanger blo | ock | Pipehanger C | lamp |
|-----------------|----------|-----------------|---------|-----------------|----------|-----------------|---------|-----------------|----------|-----------------|---------|-----------------|----------|-----------------|---------|
| W | all thic | ckness = 13 | | V | all thic | kness = 19 | | W | all thic | kness = 25 | | W | all thic | ckness = 30 | |
| Product code | ID | Product code | OD | Product code | ID | Product code | OD | Product code | ID | Product code | OD | Product code | ID | Product code | OD |
| 3708-013015-000 | 15 | 3708-041045-500 | 41-45 | 3708-019015-000 | 15 | 3708-050056-500 | 50-56 | 3708-025015-000 | 15 | 3708-062068-500 | 62-68 | 3708-030015-000 | 15 | 3708-062068-500 | 62-68 |
| 3708-013016-000 | 16 | 3708-044049-500 | 44-49 | 3708-019016-000 | 16 | 3708-050056-500 | 50-56 | 3708-025016-000 | 16 | 3708-062068-500 | 62-68 | 3708-030016-000 | 16 | 3708-062068-500 | 62-68 |
| 3708-013018-000 | 18 | 3708-044049-500 | 44-49 | 3708-019018-000 | 18 | 3708-058062-500 | 58-62 | 3708-025018-000 | 18 | 3708-062068-500 | 62-68 | 3708-030018-000 | 18 | 3708-062068-500 | 62-68 |
| 3708-013020-000 | 20 | 3708-044049-500 | 44-49 | 3708-019020-000 | 20 | 3708-058062-500 | 58-62 | 3708-025020-000 | 20 | 3708-075076-500 | 75-76 | 3708-030020-000 | 20 | 3708-075076-500 | 75-76 |
| 3708-013022-000 | 22 | 3708-044049-500 | 44-49 | 3708-019022-000 | 22 | 3708-058062-500 | 58-62 | 3708-025022-000 | 22 | 3708-075076-500 | 75-76 | 3708-030022-000 | 22 | 3708-075076-500 | 75-76 |
| 3708-013025-000 | 25 | 3708-050056-500 | 50-56 | 3708-019025-000 | 25 | 3708-062068-500 | 62-68 | 3708-025025-000 | 25 | 3708-075076-500 | 75-76 | 3708-030025-000 | 25 | 3708-075076-500 | 75-76 |
| 3708-013028-000 | 28 | 3708-050056-500 | 50-56 | 3708-019028-000 | 28 | 3708-062068-500 | 62-68 | 3708-025028-000 | 28 | 3708-075076-500 | 75-76 | 3708-030028-000 | 28 | 3708-075076-500 | 75-76 |
| 3708-013032-000 | 32 | 3708-062068-500 | 62-68 | 3708-019032-000 | 32 | 3708-062068-500 | 62-68 | 3708-025032-000 | 32 | 3708-079085-500 | 79-85 | 3708-030032-000 | 32 | 3708-079085-500 | 79-85 |
| 3708-013035-000 | 35 | 3708-062068-500 | 62-68 | 3708-019035-000 | 35 | 3708-075076-500 | 75-76 | 3708-025035-000 | 35 | 3708-079085-500 | 79-85 | 3708-030035-000 | 35 | 3708-079085-500 | 79-85 |
| 3708-013042-000 | 42 | 3708-075076-500 | 75-76 | 3708-019042-000 | 42 | 3708-079085-500 | 79-85 | 3708-025042-000 | 42 | 3708-090094-500 | 90-94 | 3708-030042-000 | 42 | 3708-090094-500 | 90-94 |
| 3708-013048-000 | 48 | 3708-075076-500 | 75-76 | 3708-019048-000 | 48 | 3708-085089-500 | 85-89 | 3708-025048-000 | 48 | 3708-100105-500 | 100-105 | 3708-030048-000 | 48 | 3708-100105-500 | 100-105 |
| 3708-013050-000 | 50 | 3708-085089-500 | 85-89 | 3708-019050-000 | 50 | 3708-090094-500 | 90-94 | 3708-025050-000 | 50 | 3708-100105-500 | 100-105 | 3708-030050-000 | 50 | 3708-100105-500 | 100-105 |
| 3708-013054-000 | 54 | 3708-085089-500 | 85-89 | 3708-019054-000 | 54 | 3708-090094-500 | 90-94 | 3708-025054-000 | 54 | 3708-100105-500 | 100-105 | 3708-030054-000 | 54 | 3708-100105-500 | 100-105 |
| 3708-013060-000 | 60 | 3708-085089-500 | 85-89 | 3708-019060-000 | 60 | 3708-100105-500 | 100-105 | 3708-025060-000 | 60 | 3708-106111-500 | 106-111 | 3708-030060-000 | 60 | 3708-106111-500 | 106-111 |
| 3708-013063-000 | 63 | 3708-090094-500 | 90-94 | 3708-019063-000 | 63 | 3708-100105-500 | 100-105 | 3708-025063-000 | 63 | 3708-114118-500 | 114-118 | 3708-030063-000 | 63 | 3708-114118-500 | 114-118 |
| 3708-013076-000 | 76 | 3708-106111-500 | 106-111 | 3708-019076-000 | 76 | 3708-114118-500 | 114-118 | 3708-025076-000 | 76 | 3708-125133-500 | 125-133 | 3708-030076-000 | 76 | 3708-125133-500 | 125-133 |
| 3708-013089-000 | 89 | 3708-118125-500 | 118-125 | 3708-019089-000 | 89 | 3708-125133-500 | 125-133 | 3708-025089-000 | 89 | 3708-132140-500 | 132-140 | 3708-030089-000 | 89 | 3708-132140-500 | 132-140 |
| 3708-013108-000 | 108 | 3708-132140-500 | 132-140 | 3708-019108-000 | 108 | 3708-148154-500 | 148-154 | 3708-025108-000 | 108 | 3708-159169-500 | 159-169 | 3708-030108-000 | 108 | 3708-159169-500 | 159-169 |
| 3708-013110-000 | 110 | 3708-132140-500 | 132-140 | 3708-019110-000 | 110 | 3708-148154-500 | 148-154 | 3708-025110-000 | 110 | 3708-159169-500 | 159-169 | 3708-030110-000 | 110 | 3708-159169-500 | 159-169 |
| 3708-013114-000 | 114 | 3708-132140-500 | 132-140 | 3708-019114-000 | 114 | 3708-148154-500 | 148-154 | 3708-025114-000 | 114 | 3708-159169-500 | 159-169 | 3708-030114-000 | 114 | 3708-159169-500 | 159-169 |
| × | Х | × | Х | 3708-019140-000 | 140 | 3708-173183-500 | 173-183 | × | х | × | Х | × | Х | х | Х |

15. PREFABRICATED PARTS

ThermaSmart PRO Prefabricated Parts

Pre-built for success

Proper installation of insulation forms the basis of a heating system that functions properly. While protection of simple and continuous installations is relatively straightforward, it can be complicated by the need to protect a system full of arches and branches. Experienced installers may not have problems with such environments, but time on the job will still be increased. That's why we offer preformed ThermaSmart PRO parts. They're manufactured to bring you ease of assembly and excellent insulation properties, even in difficult settings.









Built for speed

ThermaSmart PRO polyolefine elbows and tees bring you fast, professional results on pipe bends, branches and other places where insulation is difficult to install. Prefabricated to provide easy and efficient assembly, they reduce the number of thermal bridges to ensure maximum system efficiency with minimal cost of operation.

Help for installers

Thermaflex offers installers energy savings calculation tools, complete toolboxes and trainings on request.



- Cradle to Cradle Certified™ Bronze Product Certificate
- Cradle to Cradle Certified™ Bronze Material Health Certificate
- CE system 1 certified (including 3rd party control)
- Wheelmark certification for shipbuilding



- SBI BL, s1, d0
- IMO FTP Code res. MSC.61(67) smoke generation (ISO 5659-2)
- UL 94-HF



Insulation

Lambda 0.038 W/mK at 40°C (EN ISO 8497)

• Water vapor resistance M-value ≥ 10.000 (EN 13469)

- Lambda 0.034 W/mK at 0°C (EN ISO 8497)
- Values are degassed values (EN 14313)



Water



Service Temperature





Minimum -80°C Maximum 95°C (EN 14707)

• Wide service temperature range



Availabilities

- Available in wall thickness: 13-25mm
- Available in diameter: 15-60 mm
- Color: dark grey

• 0.1 kg/m2 (EN 1609)

Moving upward, we'll do our best to meet your wishes with continuous system innovations. For the most up-to-date info, please have a look on www.thermaflex.com

15. PREFABRICATED PARTS

| | | | | | | Prefa | bricated | elbow 45° | | | | | |
|----|------------|-----------|----------|------------|--------------------|---------------|---------------|--------------------|----------------|---------------|--------------------|---------------|---------------|
| | Diamet | er of the | pipe *** | | Wall Thick | ness E = 9 mm | | Wall Thickr | ness J = 13 mm | 1 | Wall thickr | ness N= 20 mm | ı |
| | Cu | | Fe | | | | | | | | | | |
| DN | OD (mm) | Inches | DN | OD (mm) | Product code (NEW) | Product code | meter/ box | Product code (NEW) | Product code | meter/ box | Product code (NEW) | Product code | meter/ box |
| 10 | 15,0 | 1/4 | 8 | 13,5 | 3500-009015-001 | 4009015BP | 20 | 3500-013015-001 | 4013015BP | 20 | Х | Х | Х |
| 15 | 18,0 | 3/8 | 10 | 17,2 | 3500-009018-001 | 4009018BP | 20 | 3500-013018-001 | 4013018BP | 20 | X | X | Х |
| 20 | 22,0 | 1/2 | 15 | 21,3 | 3500-009022-001 | 4009022BP | 20 | 3500-013022-001 | 4013022BP | 20 | 3500-020022-001 | 4020022BP | 20 |
| 25 | 28,0 | 3/4 | 20 | 26,9 | 3500-009028-001 | 4009028BP | 20 | 3500-013028-001 | 4013028BP | 20 | 3500-020028-001 | 4020028BP | 20 |
| 32 | 35,0 | 1 | 25 | 33,7 | 3500-009035-001 | 4009035BP | 10 | 3500-013035-001 | 4013035BP | 10 | 3500-020035-001 | 4020035BP | 10 |
| 40 | 42,0 | 1 1/4 | 32 | 42,4 | 3500-009042-001 | 4009042BP | 10 | 3500-013042-001 | 4013042BP | 10 | 3500-020042-001 | 4020042BP | 10 |
| X | 48,0 | 1 1/2 | 40 | 48,3 | 3500-009048-001 | 4009048BP | 10 | 3500-013048-001 | 4013048BP | 10 | 3500-020048-001 | 4020048BP | 10 |
| 50 | 54,0 | Х | Х | 54.0 | 3500-009054-001 | 4009054BP | 10 | 3500-013054-001 | 4013054BP | 10 | 3500-020054-001 | 4020054BP | 10 |
| X | 60,0 | X | Х | 60,3 | 3500-009060-001 | 4009060BP | 10 | 3500-013060-001 | 4013060BP | 10 | 3500-020060-001 | 4020060BP | 10 |
| Х | 63,0 | Х | Х | 63,5 | 3500-009063-001 | 4009063BP | 10 | 3500-013063-001 | 4013063BP | 10 | 3500-020063-001 | 4020063BP | 10 |

| | Prefabricated segmented elbow 22,5° | | | | | | | | | | | | |
|----|-------------------------------------|-------------|----------|------------|-------------------------|--------------|---------------|--------------------------|--------------|---------------|--------------------------|--------------|---------------|
| | Diamet | er of the p | oipe *** | | Wall Thickness E = 9 mm | | | Wall Thickness J = 13 mm | | | Wall thickness J = 20 mm | | |
| | Cu Fe | | | | | | | | | | | | |
| DN | OD (mm) | Inches | DN | OD (mm) | Product code (NEW) | Product code | meter/ box | Product code (NEW) | Product code | meter/ box | Product code (NEW) | Product code | meter/ box |
| 10 | 15,0 | 1/4 | 8 | 13,5 | 3500-009015-031 | 4009015B3P | 20 | 3500-013015-031 | 4013015B3P | 20 | Х | Х | Х |
| 15 | 18,0 | 3/8 | 10 | 17,2 | 3500-009018-031 | 4009018B3P | 20 | 3500-013018-031 | 4013018B3P | 20 | X | Х | Х |
| 20 | 22,0 | 1/2 | 15 | 21,3 | 3500-009022-031 | 4009022B3P | 20 | 3500-013022-031 | 4013022B3P | 20 | 3500-020022-031 | 4120022B3P | 20 |
| 25 | 28,0 | 3/4 | 20 | 26,9 | 3500-009028-031 | 4009028B3P | 20 | 3500-013028-031 | 4013028B3P | 20 | 3500-020028-031 | 4120028B3P | 20 |
| 32 | 35,0 | 1 | 25 | 33,7 | 3500-009035-031 | 4009035B3P | 10 | 3500-013135-031 | 4013035B3P | 10 | 3500-020035-031 | 4120035B3P | 10 |
| 40 | 42,0 | 1 1/4 | 32 | 42,4 | 3500-009045-031 | 4009042B3P | 10 | 3500-013042-031 | 4013042B3P | 10 | 3500-020042-031 | 4120042B3P | 10 |
| Х | 48,0 | 1 1/2 | 40 | 48,3 | 3500-009048-031 | 4009048B3P | 10 | 3500-013048-031 | 4013048B3P | 10 | 3500-020048-031 | 4120048B3P | 10 |
| 50 | 54,0 | Х | Х | 54.0 | 3500-009054-031 | 4009054B3P | 10 | 3500-013054-031 | 4013054B3P | 10 | 3500-020054-031 | 4120054B3P | 10 |
| Х | 60,0 | Х | Х | 60,3 | 3500-009060-031 | 4009060B3P | 10 | 3500-013060-031 | 4013060B3P | 10 | 3500-020060-031 | 4120060B3P | 10 |
| X | 63,0 | Х | Χ | 63,5 | 3500-009063-031 | 4009063B3P | 10 | 3500-013063-031 | 4013063B3P | 10 | 3500-020063-031 | 4120063B3P | 10 |

^{***)} Tolerance according to: EN14313:2015



15. PREFABRICATED PARTS

| | Prefabricated segmented elbow 15° | | | | | | | | | | | | |
|----|-----------------------------------|-----------|----------|------------|--------------------|---------------|---------------|--------------------------|--------------|---------------|--------------------------|--------------|---------------|
| | Diamet | er of the | pipe *** | | Wall Thickr | ness E = 9 mm | | Wall Thickness J = 13 mm | | | Wall thickness J = 20 mm | | |
| | Cu Fe | | | | | | | | | | | | |
| DN | OD (mm) | Inches | DN | OD (mm) | Product code (NEW) | Product code | meter/ box | Product code (NEW) | Product code | meter/ box | Product code (NEW) | Product code | meter/ box |
| 10 | 15,0 | 1/4 | 8 | 13,5 | 3500-009015-041 | 4009015B4P | 20 | 3500-013015-041 | 4013015B4P | 20 | Х | Х | × |
| 15 | 18,0 | 3/8 | 10 | 17,2 | 3500-009018-041 | 4009018B4P | 20 | 3500-013018-041 | 4013018B4P | 20 | X | X | Х |
| 20 | 22,0 | 1/2 | 15 | 21,3 | 3500-009022-041 | 4009022B4P | 20 | 3500-013022-041 | 4013022B4P | 20 | 3500-020022-041 | 4120022B4P | 20 |
| 25 | 28,0 | 3/4 | 20 | 26,9 | 3500-009028-041 | 4009028B4P | 20 | 3500-013028-041 | 4013028B4P | 20 | 3500-020028-041 | 4120028B4P | 20 |
| 32 | 35,0 | 1 | 25 | 33,7 | 3500-009035-041 | 4009035B4P | 10 | 3500-013035-041 | 4013035B4P | 10 | 3500-020035-041 | 4120035B4P | 10 |
| 40 | 42,0 | 1 1/4 | 32 | 42,4 | 3500-009042-041 | 4009042B4P | 10 | 3500-013042-041 | 4013042B4P | 10 | 3500-020042-041 | 4120042B4P | 10 |
| Х | 48,0 | 1 1/2 | 40 | 48,3 | 3500-009048-041 | 4009048B4P | 10 | 3500-013048-041 | 4013048B4P | 10 | 3500-020048-041 | 4120048B4P | 10 |
| 50 | 54,0 | Х | Х | 54.0 | 3500-009054-041 | 4009054B4P | 10 | 3500-013054-041 | 4013054B4P | 10 | 3500-020054-041 | 4120054B4P | 10 |
| X | 60,0 | X | Х | 60,3 | 3500-009060-041 | 4009060B4P | 10 | 3500-013060-041 | 4013060B4P | 10 | 3500-020060-041 | 4120060B4P | 10 |
| Х | 63,0 | Х | X | 63,5 | 3500-009063-041 | 4009063B4P | 10 | 3500-013063-041 | 4013063B4P | 10 | 3500-020063-041 | 4120063B4P | 10 |

| | Prefabricated T-piece | | | | | | | | | | | | |
|----|-----------------------|-------------|----------|------------|-------------------------|--------------|---------------|--------------------------|--------------|---------------|--------------------------|--------------|---------------|
| | Diamet | er of the p | pipe *** | | Wall Thickness E = 9 mm | | | Wall Thickness J = 13 mm | | | Wall thickness J = 20 mm | | |
| | Cu | Fe | | | | | | | | | | | |
| DN | OD (mm) | Inches | DN | OD (mm) | Product code (NEW) | Product code | meter/ box | Product code (NEW) | Product code | meter/ box | Product code (NEW) | Product code | meter/ box |
| 10 | 15,0 | 1/4 | 8 | 13,5 | 3500-009015-301 | 4009015TP | 20 | 3500-013015-301 | 4009015TP | 20 | Х | Х | Х |
| 15 | 18,0 | 3/8 | 10 | 17,2 | 3500-009018-301 | 4009018TP | 20 | 3500-013018-301 | 4009018TP | 20 | X | X | Х |
| 20 | 22,0 | 1/2 | 15 | 21,3 | 3500-009022-301 | 4009022TP | 20 | 3500-013022-301 | 4009022TP | 20 | 3500-020022-301 | 4120022TP | 20 |
| 25 | 28,0 | 3/4 | 20 | 26,9 | 3500-009028-301 | 4009028TP | 20 | 3500-013028-301 | 4009028TP | 20 | 3500-020028-301 | 4120028TP | 20 |
| 32 | 35,0 | 1 | 25 | 33,7 | 3500-009035-301 | 4009035TP | 10 | 3500-013035-301 | 4009035TP | 10 | 3500-020035-301 | 4120035TP | 10 |
| 40 | 42,0 | 1 1/4 | 32 | 42,4 | 3500-009042-301 | 4009042TP | 10 | 3500-013042-301 | 4009042TP | 10 | 3500-020042-301 | 4120042TP | 10 |
| × | 48,0 | 1 1/2 | 40 | 48,3 | 3500-009048-301 | 4009048TP | 10 | 3500-013048-301 | 4009048TP | 10 | 3500-020048-301 | 4120048TP | 10 |
| 50 | 54,0 | X | X | 54,0 | 3500-009054-301 | 4009054TP | 10 | 3500-013054-301 | 4009054TP | 10 | 3500-020054-301 | 4120054TP | 10 |
| × | 60,0 | х | X | 59,5 | 3500-009060-301 | 4009060TP | 10 | 3500-013060-301 | 4009060TP | 10 | 3500-020060-301 | 4120060TP | 10 |
| Х | 63.0 | Х | Х | 63,5 | 3500-009063-301 | 4009063TP | 10 | 3500-013063-301 | 4009063TP | 10 | 3500-020063-301 | 4120063TP | 10 |

^{***)} Tolerance according to: EN14313:2015



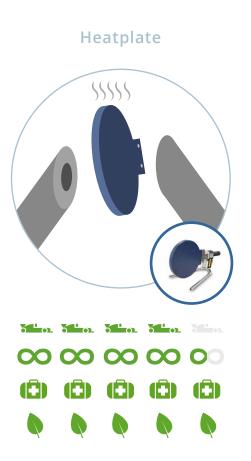
16. CONNECTIONS

Solidifying your system

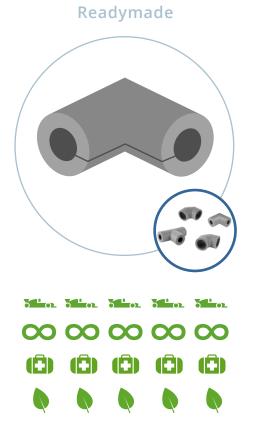
Craftsmanship in the forefront

Connections are often the most vulnerable and time-consuming part of an insulation system. So when it comes to efficiently insulating an installation, the type of connections should be carefully considered. To tailor to all possible needs, we offer 3 main connection solutions to seal off your system: from your basic glues, to factory prefabricated connections, and a heat plate tool to prefab-it-yourself at the speed of light.

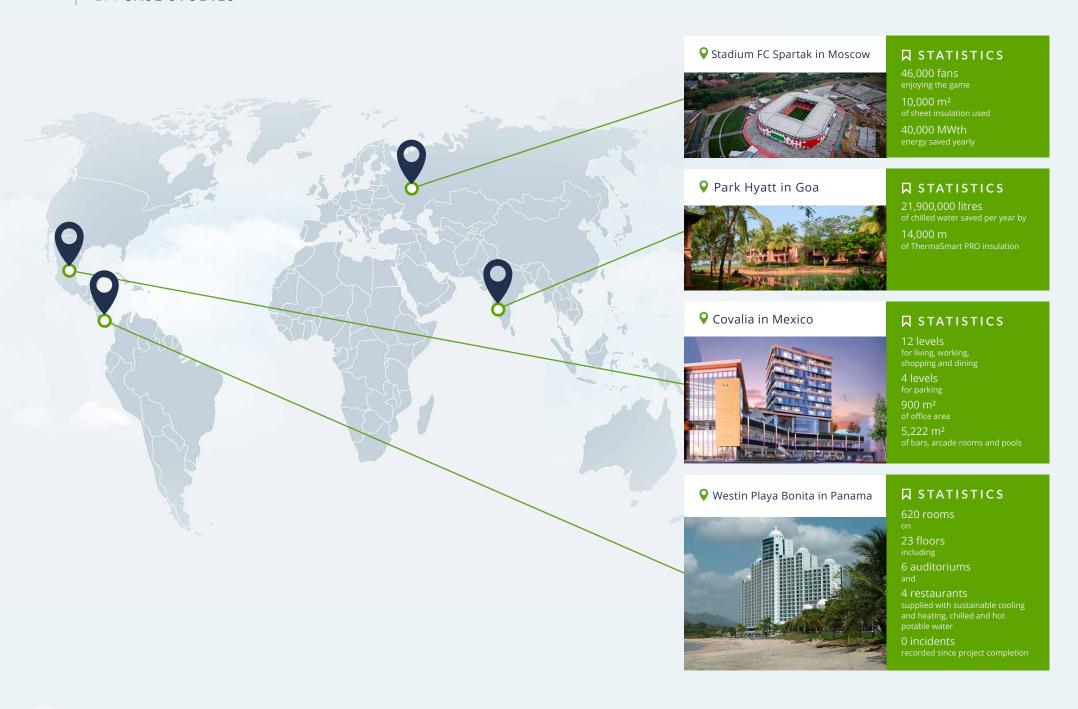
Glue 5 or stor stor stor



Rating: Ease & time savings Reliability Health Sustainability



17. CASE STUDIES



17. CASE STUDIES

Covalia, San Luis Potosi



Serving diverse, high-end needs in an all-in-one solution

The city of San Luis Potosi is one of the most advanced regions in the Mexico. Its central location and large industrial economy harnesses considerable potential for economic growth and development. The Covalia complex rhymes perfectly with these ambitions, bringing together numerous and distinct users in an iconic real estate development project in the city. A smart and innovative energy solution was key to meet such high and diverse demands.

The Covalia state-of-the-art building complex sought to secure an integrated energy solution for its wide variety of end-users, the first of its kind in the state of San Luis Potosi. In order to meet the different needs in such an energy-intensive facility, engineering an efficient and sustainable solution was crucial.

Goals

Serving to be a leading example in the industry, the goal for the Covalia project developers was clear – to find an innovative, efficient and sustainable solution which positively contributes to a healthy indoor environment at the highest level of comfort and well-being for its diverse users. It was to become one of the most popular addresses for living, work and play, attracting both the local community as well as visitors. Considering the hot and humid climate in the region, a high level of energy-efficiency at minimal maintenance throughout building lifetime was desired. Thermaflex stood out as the ideal solution provider for this cutting edge project.

Details

In order to keep up a healthy and clean indoor environment, an efficient and sustainable level of heating, cooling and ventilation – using healthy materials – is key. In close cooperation with the real estate developer, Thermaflex designed and developed a complete solution for Covalia's energy infrastructure with a smart network of pre-insulated Flexalen pipes, next to 2.3 km of ThermaSmart PRO tubes and 200 m² of ThermaSmart PRO for the existing installations.

Results

All 12 storeys of living, working, shopping and dining are now perfectly equipped to fulfill the high and diverse energy demands in a perfectly clean and healthy indoor environment. The widespread needs and conditions for the multitude of different users are met at a flawless performance to this day. Our solution guarantees this performance throughout the lifetime of the building. The Covalia and its exclusive mix of services developed as an attractive spot for the local community, numerous tourists and business travelers today.

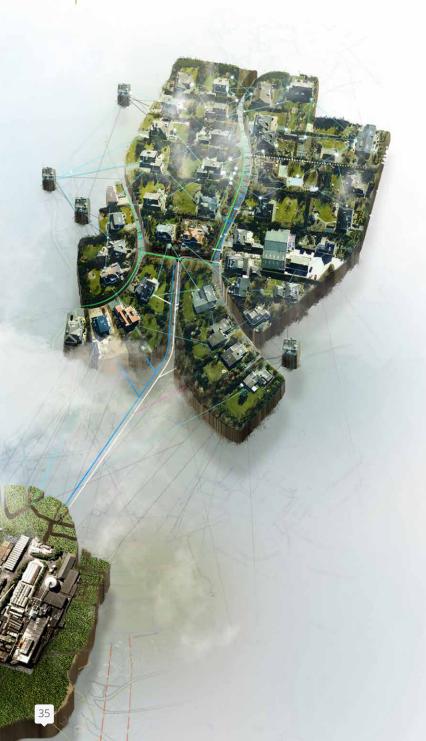








18. LET'S CONNECT



Our process

| Fran | ne | Design | Realize | Support | Evaluate | Reclaim |
|--------------------|------|---------------------------------|---------------|---|-----------------------------------|--|
| Def proj goa | ject | Engineer a smart solution | The spadework | Commit- ment to smooth realization | Ensure benefit of ownership | Close the loop with material second life |

A customized approach

No two projects are the same. But after seeing thousands of them around the world, we know what makes them a sustainable success. Your specific projects goals come first and act as the 'yardstick' throughout the project. Our very best engineers design the best possible solution and calculate optimal routing and dimensioning; fast implementation and lifecycle performance are always on the top of their minds. Once full alignment on all aspects of the project is reached, it's time for implementation.

Our tools, training and on-site support ensure a smooth implementation of the project. We are only happy when you are. All that's left for users and owners is to enjoy affordable and headache-free comfort for generations to come. After that, safe and efficient reclaim secures the renewed purpose of our carefully selected materials.

Your very own thermal energy expert

Team up today with our highly dynamic, and professional team of experts and engineers. Our solutions have proven successful in any climate, situation or working conditions. Locally, our teams of professionals across the globe are ready to cater for your needs, from Panama to Siberia.

What goals do you want to achieve?

Cost control Operational efficiency

Installation ease and speed

Energy saving

Environmental capital

Life expectancy





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