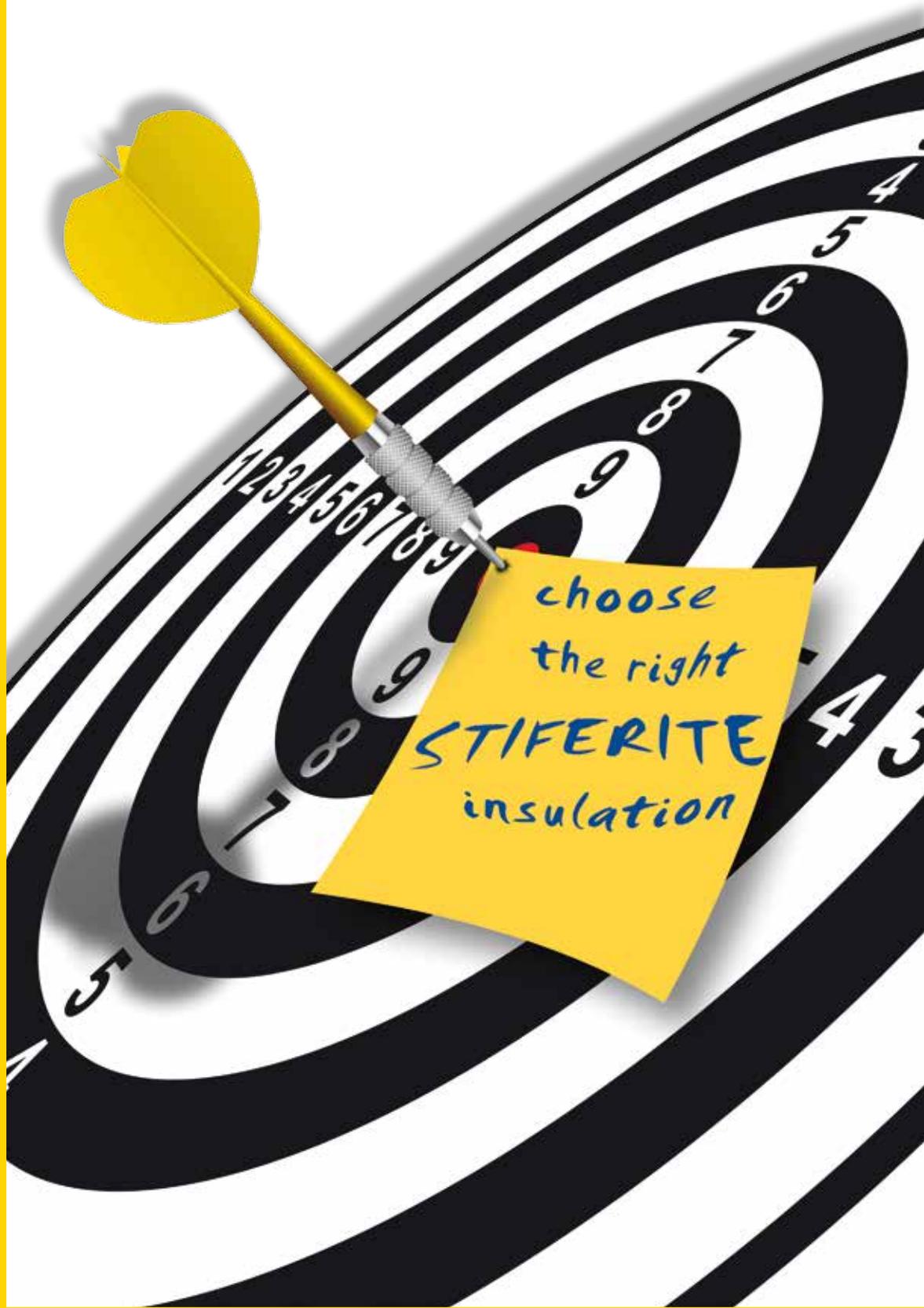


HEAT INSULATING PANELS AND SYSTEMS



stiferite[®]
thermal insulation

our history

Mission

The name Stiferite has been synonymous with thermal insulation for over 40 years.

Its identity dates back to the 1960s, when the company STIFER (an acronym created from the name of its founder, FERdinando STImamiglio), was the first to introduce STIFERITE (**STIFER**-Isolanti-**TE**rmici) polyurethane rigid foam panels to Europe.

Thanks to the insight of Ferdinando Stimamiglio, polyurethane rigid foam insulation which was used in the production of domestic and industrial refrigerators, was also developed for use in the building and industrial insulation sector.

The excellent insulating properties of polyurethane, combined with its practical use, led to the rapid success of STIFERITE insulating materials in these new areas.

In 1968 the production plant was transferred from its initial site in Pomezia, Rome to a new plant in Padua, where a new continuous production line with increased capabilities was installed.

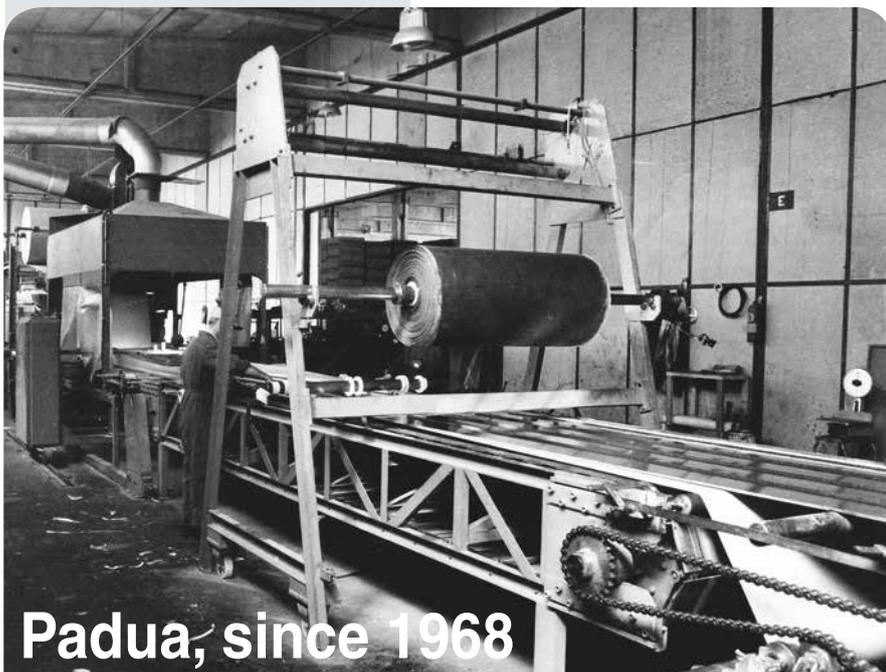
During the 1970s and 1980s, the first energy crisis helped to raise market awareness toward the need for heat insulation. Because of the growing demand for more and efficient insulation, it became necessary to install a second line for increased production. Also new foams were developed in order to satisfy the need in various and specific applications.

Over the years, STIFERITE has been successful in maintaining its great innovation ability which was characterized in the beginning of its activity. STIFERITE was the first to develop in its laboratories and production, the first polyurethane foam panels with mineral fibre facers, and the first to use blowing agents that are harmless to the ozone layer. The new STIFERITE's Polyiso foams, are designed to optimizing application performance: the gas-tight (GT) facer in the STIFERITE'S GT panel was designed to ensure long term insulation stability, external insulation (Class SK) used in "cappotto" (wrapped like a "coat" around the external walls of the building) systems, ventilated roof insulation (STIFERITE'S ISOVENTILATO) and the new FIRE B panel with excellent fire reaction properties.

STIFERITE's Padua plant consists of two continuous production lines, capable of producing over 10 million square metres of various insulation panels per year. All of STIFERITE production systems are manned and electronically controlled to ensure and maintain high quality standards.

Since 1968, over 170 million square metres of STIFERITE insulation panels have been installed in buildings, which has resulted in a significant amount of energy savings and reduction of harmful atmospheric emissions.

For forty years we have been committed to: promoting energy saving, the safety of buildings, living comfort and protection of our environmental resources.



CE Marking and ISO 9001 Quality Systems

STIFERITE products are subject to the strict controls established by the new European Regulation on Construction Products no. 305/11 (CPR) - which in July 2013 replaced the Construction Product Directive - CPD). All quality control activities are carried out according to the criteria established by the European harmonized standard EN 13165, specific for factory made polyurethane panels with various facings. The Declarations of Performance (DOP) of products, as established by the CPR, are available on our website: www.stiferite.com.

Furthermore, STIFERITE's products are subject to a strict quality control procedure based on the Quality Control Manual written in accordance to the standard ISO 9001. Verification of compliance to all procedures is guaranteed through monitoring by independent bodies and the certification of ISO 9001 Quality System.

Towards Nearly Zero Energy Buildings

Studies have shown that energy saving is the most accessible and economically advantageous form of alternative energy. Through energy saving we can limit the amount and duration of non-renewable energy sources.

In Europe nearly 40% of energy consumption is associated with the heating and cooling of buildings. By improving the efficiency in this sector, we would reduce harmful emissions to the environment by 40% as set by the Kyoto Protocol.

Therefore, the energy efficiency of buildings is an increasingly important key to the European Energy Policy objective of "20-20-20", which defines the European Union Member States target of: reduce by 20% the emissions of greenhouse gases, increase by 20% the energy efficiency and reach 20% of renewable in total energy consumption in the EU by the year 2020.

The building sector will have a determining role in reaching these targets, as the European Community moves towards the requirement of NZE (Near Zero Energy) for new buildings.



to save energy

best performances

Thermal Insulation

The Polyisocyanate (PIR) foam produced by STIFERITE ensures a high level of efficient insulation. This efficiency significantly reduces the amount of panel thickness required to reach pre-determined thermal insulation requirements of a structure, as shown in the comparison below.

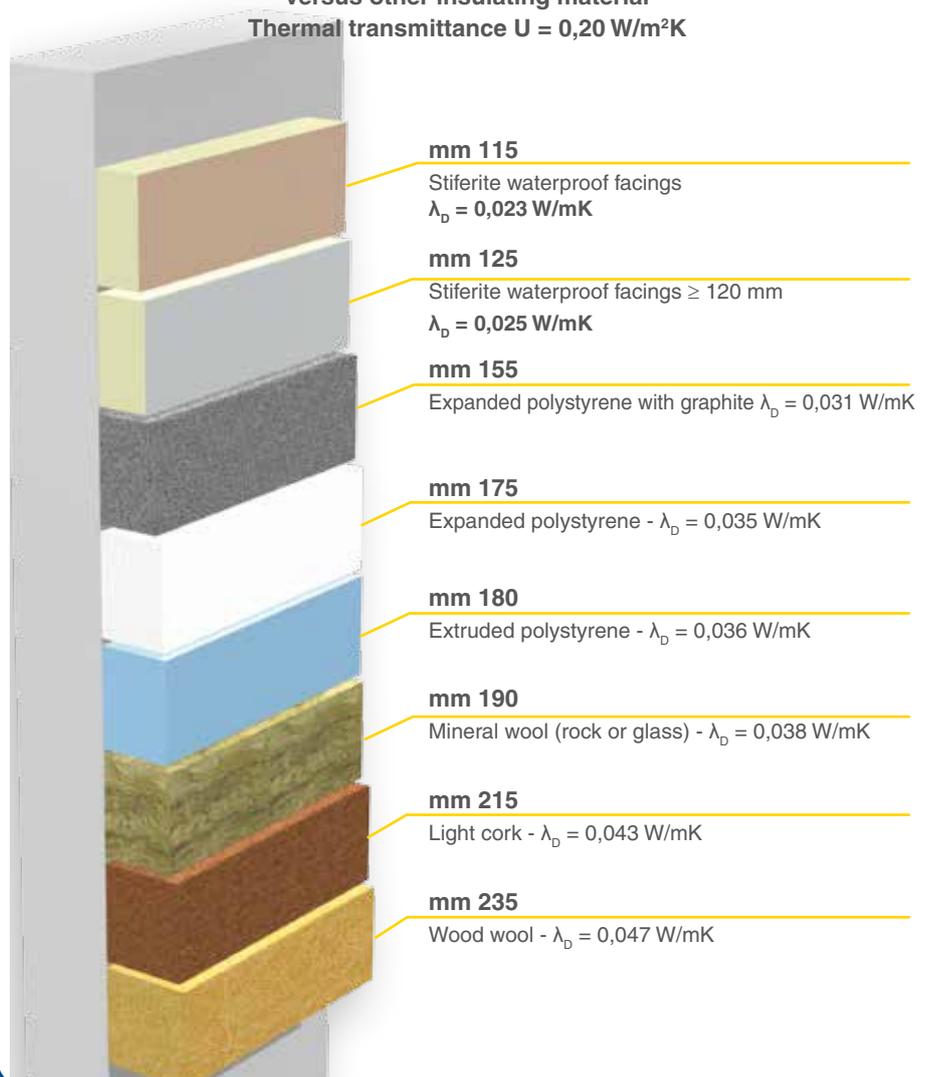
The thermal conductivity values (λ_D) of the most common insulating materials and the thicknesses required to obtain a thermal transmittance value ($U = \lambda_D/d$) of 0.20 W/m²K:

Thinner STIFERITE's insulation panels translate to the following benefits:

- ▶ smaller overall dimensions
- ▶ increased living space
- ▶ lower consumption of resources
- ▶ fewer transport costs
- ▶ fewer labour and installation costs

| STIFERITE panels - EN 13165 | λ_D W/mK |
|---|------------------|
| GT - GTE - AI4 - GT Wind - GT 3 - 4 - 5 - RP1, 3 | 0,023 |
| Class B - Class BH - Class S - Class SH - Class SK - FIRE B - Isoventilato - thicknesses from 120 to 140 mm | 0,025 |
| Class B - Class BH - Class S - Class SH - Class SK - FIRE B - Isoventilato - thicknesses from 80 to 110 mm | 0,026 |
| Class B - Class BH - Class S - Class SH - Class SK - FIRE B - Isoventilato - thicknesses from 20 to 70 mm | 0,028 |

Comparison of Stiferite's insulation thicknesses required versus other insulating material
Thermal transmittance $U = 0,20$ W/m²K



Other features and performances

Long term water absorption (EN 12087)

| STIFERITE panels | % by weight |
|---|-------------|
| GT - GTE - AI4 - Class SK thickness \geq 120mm | < 1 |
| Class S - Class SH - Class B - Class BH - Class SK thickness < 120 mm - FIRE B - Isoventilato | < 2 |
| BB (panels with paper facings) | < 5 |

Short term water absorption by partial immersion (EN 1609)

| STIFERITE panels | kg/m ² |
|--|-------------------|
| GT - GTE - AI | < 0,1 |
| Class S, Class SH, Class B, Class BH, Class SK, FIRE B, Isoventilato | < 0,2 |
| BB (paper facings) | < 0,3 |

Water vapour diffusion resistance Z and Water vapour permeability factor μ (EN 12086)

| STIFERITE panels | Z (m ² /hPa) value for thickness 100 mm | μ value for thickness 100 mm |
|-----------------------------|---|-------------------------------------|
| Class B | 4,9 | 33 |
| Class S - Class SK - FIRE B | 8 | 56 |
| Isoventilato | 9,6 | 68 |
| BB (paper facings) | 13 | 87 |
| GT | 21 | 148 |
| GTE - AI4 | >13440 | > 89900 |

Reaction to fire (EN 11925-2, EN 13823)

| STIFERITE panels | EUROCLASS |
|---|-----------|
| RP1, RP3, FIRE B | B s1 d0 |
| AI4 | D s2 d0 |
| GTE - Class S - Class SK - Isoventilato | E |
| GT - Class B | F |
| END USE CONDITION | |
| External insulation system - Class SK panel | B s1 d0 |
| Under sheet metal roofs - GTE panel | B s2 d0 |

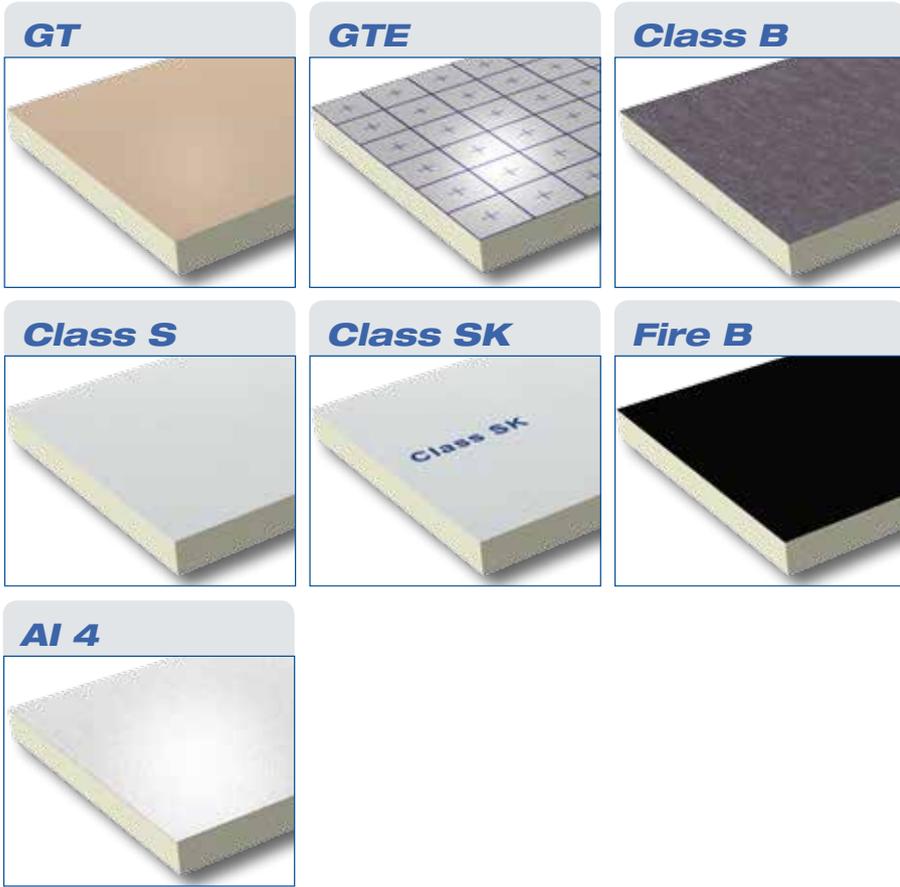
Compressive strength at 2% deformation (EN 826)

| STIFERITE panels | Performance range according to thickness (kPa) |
|---------------------|--|
| Class SH - Class BH | 70 - 90 |
| Class S - Class B | 50 - 60 |
| Isoventilato | 50 - 60 |
| GT - GTE | 43 - 53 |

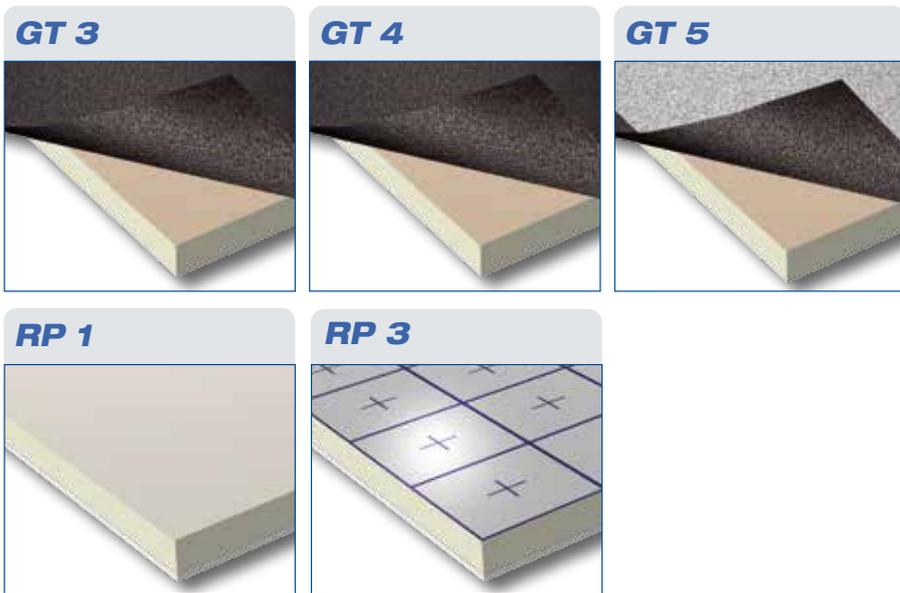
LCA Global Resource Consumption GER (MJ)

| STIFERITE panels | 1 kg | 1 R m ² K/W | 1 m ² | 1m ³ |
|-------------------------|------|------------------------|------------------|-----------------|
| STIFERITE GT 80 mm | 96 | 78 | 259 | 3238 |
| STIFERITE Class S 60 mm | 101 | 98 | 209 | 3473 |
| STIFERITE Class B 40 mm | 87 | 121 | 173 | 4325 |

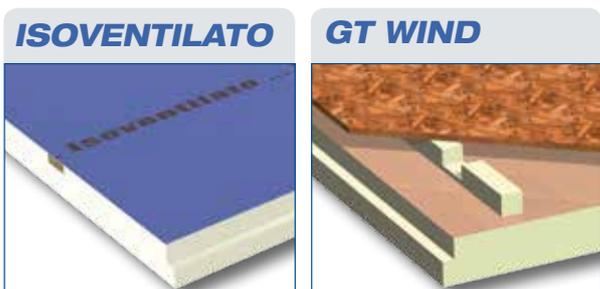
Panels



**Sandwich Panels
Coupled with Sheath
or Plasterboard**



Systems



our products

GT

Description

STIFERITE GT panel is a high performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is bonded between two Duotwin facers.

Standard Sizes:

600 x 1200 mm

Standard Thicknesses:

from 20 to 120 mm

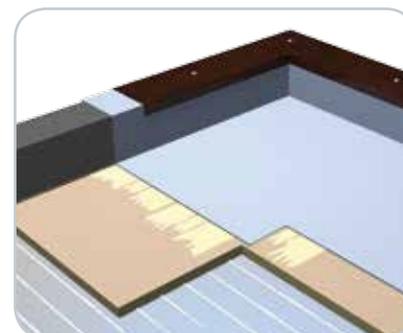
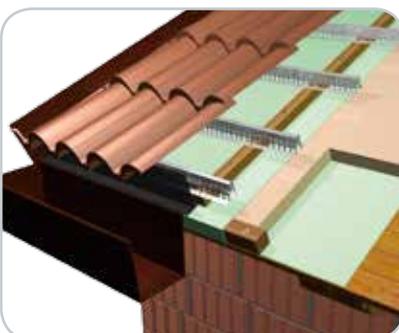
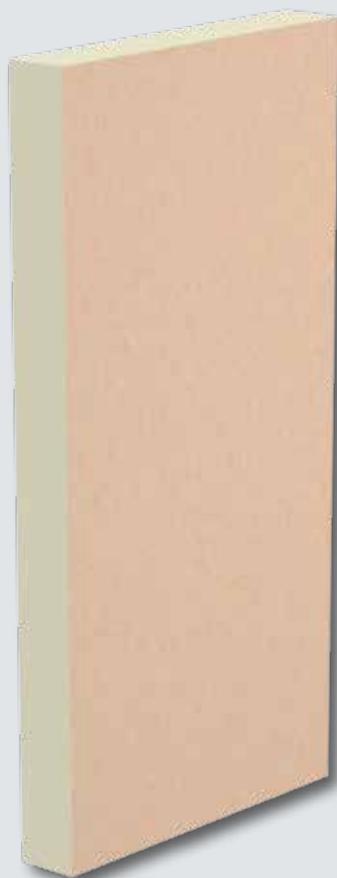
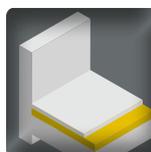
Main applications

Thermal insulation for pitched ventilated and/or non-ventilated roofs

Thermal insulation for pitched or flat roofs under synthetic mantles

Thermal insulation for walls

Thermal insulation for pavements



Performances of THERMAL INSULATION

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90,1} = 0,022 \text{ W/mK}$$

Declared thermal conductivity
[UNI EN13165 Annex A and C]
Value determined at 10 °C

$$\lambda_D = 0,023 \text{ W/mK}$$

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 20 | 1,15 | 0,87 |
| 30 | 0,77 | 1,30 |
| 40 | 0,58 | 1,74 |
| 50 | 0,46 | 2,17 |
| 60 | 0,38 | 2,61 |
| 70 | 0,33 | 3,04 |
| 80 | 0,29 | 3,48 |
| 90 | 0,26 | 3,91 |
| 100 | 0,23 | 4,35 |
| 110 | 0,21 | 4,78 |
| 120 | 0,19 | 5,22 |

Other features and performances

| | | |
|---|--|--|
| Board density | Average value with facing characteristics | 36 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | from 130 to 150 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | F |
| Specific heat capacity | | 1453 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu = 148 \pm 24$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 1% _w |
| Water absorption per diffusion del vapore | [UNI EN 12088] | 0,43-0,41 kg/m ² |
| Acoustic isolation to wall | [UNI EN ISO 140-3] [UNI EN ISO 717-1] for stratigraphy see technical data sheet | 54 - 53 dB |
| Reduction of transmitted impact noise | [UNI EN ISO 140-8] [UNI EN ISO 717-2] for stratigraphy see technical data sheet | 18 dB |
| Apparent dynamics stiffness | [UNI EN ISO 29052-1] | 68 MN/m ³ ; GT 20 59 MN/m ³ ; GT 30 |
| Pull through | [EN 16382] | more 800 N |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C and +120 °C. | |

Guideline for drafting of TECHNICAL SPECIFICATIONS

STIFERITE'S GT is a thermal insulation board in polyiso (PIR) rigid foam of thickness....(*), bonded between two Duotwin® facers having:

Declared thermal conductivity:

$$\lambda_D = 0,023 \text{ W/mK (EN 13165 Annex A and C)}$$

Compressive strength:

$$\text{minimum value} = \dots \text{ kPa (EN 826)}$$

Water vapour diffusion resistance factor:

$$\mu = 148 \text{ (EN 12086)}$$

Water vapour diffusion resistance:

$$Z = 21.0 \text{ m}^2/\text{hPa (EN 12086)}$$

Water absorption:

$$WL < 1 \% \text{ (EN 12087)}$$

Euroclass reaction to fire:

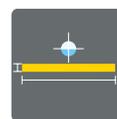
$$F \text{ (EN 11925-2)}$$

Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



resistant to loads



perfect dimensional stability



resistant to high and low temperatures (from -40 °C to +120 °C)



Euroclass F fire reaction



low water absorption



light and easily workable



wall acoustic isolation



perfect compatibility with synthetic and polyolefin membranes

For Other features and performances see the Technical Data Sheet available on line: www.stiferite.it

GTE

Description

STIFERITE's GTE panel is a high performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is bonded between two Gas-Tight aluminium foil facers.

Standard Sizes:

mm 600 x 1200

Standard Thicknesses:

from 20 to 120 mm

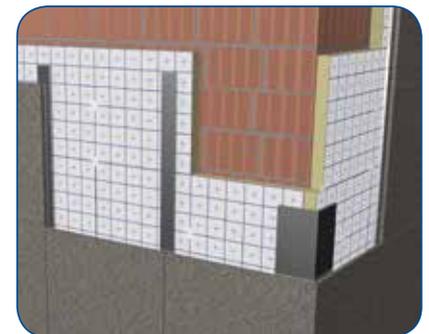
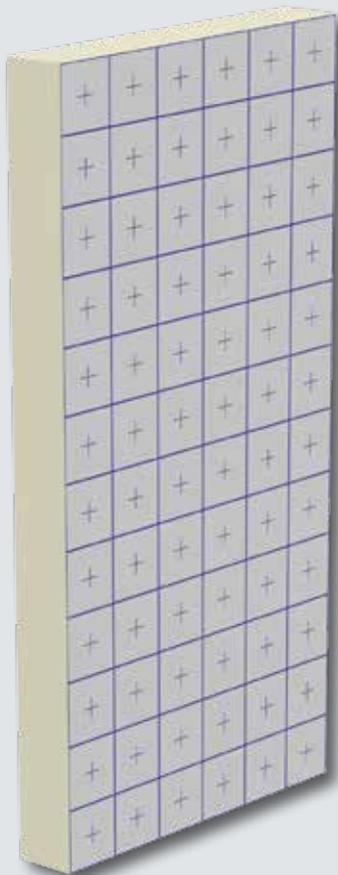
Main applications

Thermal insulation for pitched or flat roofs under synthetic mantles

Thermal insulation for walls, with or without ventilated cladding

Thermal insulation for standard or heated pavements

Ideal for applications requiring a vapour barrier



Performances of THERMAL INSULATION

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90, i} = 0,022 \text{ W/mK}$$

Declared thermal conductivity
[UNI EN13165 Annex A and C]
Value determined at 10 °C

$$\lambda_D = 0,023 \text{ W/mK}$$

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 20 | 1,15 | 0,87 |
| 30 | 0,77 | 1,30 |
| 40 | 0,58 | 1,74 |
| 50 | 0,46 | 2,17 |
| 60 | 0,38 | 2,61 |
| 70 | 0,33 | 3,04 |
| 80 | 0,29 | 3,48 |
| 90 | 0,26 | 3,91 |
| 100 | 0,23 | 4,35 |
| 110 | 0,21 | 4,78 |
| 120 | 0,19 | 5,22 |

Other features and performances

| | | |
|--|---|--|
| Board density | Average value with facing characteristics | 34 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | from 130 to 150 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | E |
| Specific heat capacity | | 1442 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu > 89900$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 1% _w |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C and +120 °C. | |

Guideline for drafting of TECHNICAL SPECIFICATIONS

STIFERITE's GTE is a thermal insulation board in polyiso (PIR) rigid foam of thickness....(*), bonded between two Gas-Tight aluminium foil facers having:

Declared thermal conductivity:

$$\lambda_D = 0,023 \text{ W/mK (EN 13165 Annex A and C)}$$

Compressive strength:

minimum value = ... kPa (EN 826)

Water vapour diffusion resistance factor:

$$\mu > 89900 \text{ (EN 12086)}$$

Water vapour diffusion resistance:

$$Z = 13440 \text{ m}^2/\text{hPa (EN 12086)}$$

Water absorption:

$$WL < 1 \% \text{ (EN 12087)}$$

Euroclass reaction to fire:

E (EN 11925-2)

Euroclass reaction to fire in accordance steel deck:

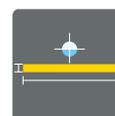
B s1 d0 - B s2 d0 in funzione del tipo di giunto
(EN 13501-1)

Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*)The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



resistant to loads



perfect dimensional stability



resistant to high and low temperatures (from -40 °C to +120°C)



light and easily workable



low water absorption



perfect compatibility with synthetic and polyolefin membranes



Euroclass E fire reaction

Class B



Description

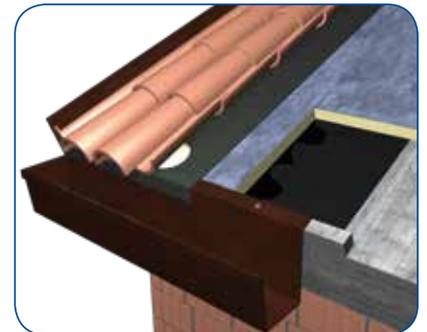
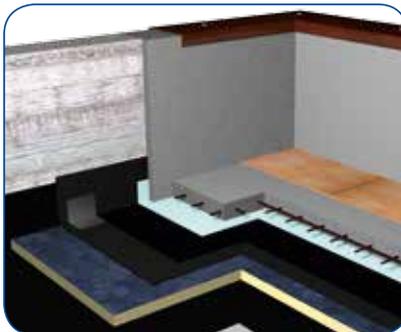
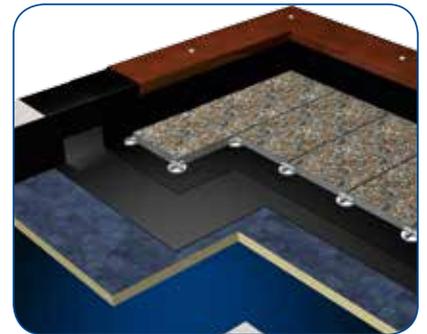
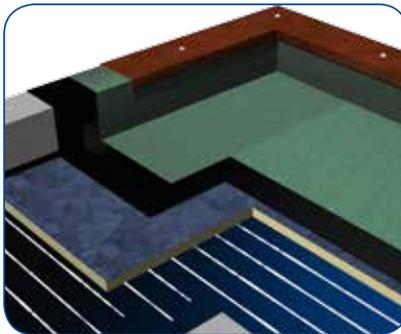
STIFERITE's CLASS B panel is a high performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is bonded with facers made of mineral saturated fibre on one side and the other with bituminous fibre glass with a layer of PPE.

Standard Sizes:
mm 600 x 1200
Standard Thicknesses:
from 30 to 140 mm

Available in Class BH with compressive strength of 200 kPa

Main applications

Thermal insulation for roofs under bituminous waterproofing mantles and where flame torch soldering is required



Class B

Performances of THERMAL INSULATION

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90,1} = 0,024 \text{ W/mK}$$

Declared thermal conductivity
[UNI EN13165 Annex A and C]
Value determined at 10 °C

$\lambda_D = 0,028 \text{ W/mK}$ thicknesses from 30 to 70

$\lambda_D = 0,026 \text{ W/mK}$ thicknesses from 80 to 110

$\lambda_D = 0,025 \text{ W/mK}$ thicknesses from 120 to 140

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 30 | 0,93 | 1,07 |
| 40 | 0,70 | 1,43 |
| 50 | 0,56 | 1,79 |
| 60 | 0,47 | 2,14 |
| 70 | 0,40 | 2,50 |
| 80 | 0,33 | 3,08 |
| 90 | 0,29 | 3,46 |
| 100 | 0,26 | 3,85 |
| 110 | 0,24 | 4,23 |
| 120 | 0,21 | 4,80 |
| 130 | 0,19 | 5,20 |
| 140 | 0,18 | 5,60 |

Other features and performances

| | | |
|--|---|---|
| Board density | Average value with facing characteristics | 44 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | da 150 a 175 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | F |
| Specific heat capacity | | 1464 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu = 33 \pm 2$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 2% _w |
| Pull through | [EN 16382] | more 800 N |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C and +120 °C. For a short time they can also resist temperatures up to +200 °C, or corresponding to the temperature of molten bitumen, without particular problems. | |

Guideline for drafting of TECHNICAL SPECIFICATIONS

STIFERITE's Class B is a thermal insulation board in polyiso (PIR) rigid foam of thickness....(*) , bonded with facers made of mineral saturated fibre on one side and the other with bituminous fibre glass with a layer of PPE having:

Declared thermal conductivity:

$$\lambda_D = \dots \text{ W/mK (EN 13165 Annex A and C)}$$

Compressive strength:

minimum value = ... kPa (EN 826)

Water vapour diffusion resistance factor:

$$\mu = 33 \text{ (EN 12086)}$$

Water vapour diffusion resistance:

$$Z = 4.9 \text{ m}^2/\text{hPa (EN 12086)}$$

Water absorption:

$$WL < 2 \% \text{ (EN 12087)}$$

Euroclass reaction to fire:

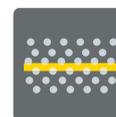
F (EN 11925-2)

Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



resistant to flaming



vapour permeability



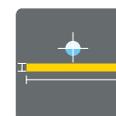
resistant to loads



Euroclass F fire reaction



resistant to high and low temperatures (from -40 °C to +120 °C)



perfect dimensional stability



perfetta compatibilità con le membrane impermeabili



light and easily workable



low water absorption



high resistance to peeling

For Other features and performances see the Technical Data Sheet available on line: www.stiferite.it

class S



Description

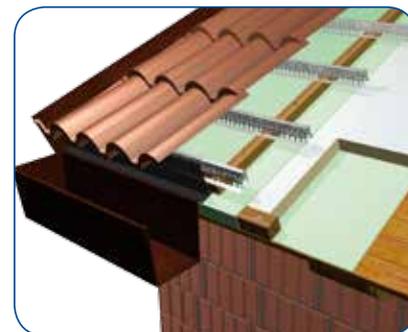
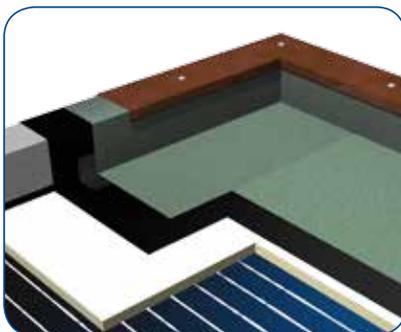
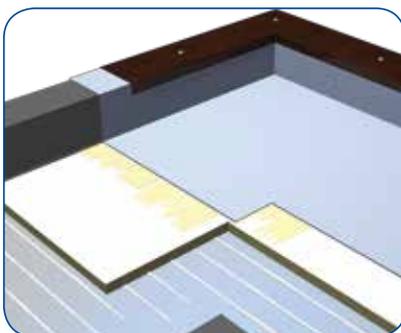
STIFERITE's CLASS S is a high performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is bonded between two saturated fibre glass facers.

Standard Sizes:
mm 600 x 1200
Standard Thicknesses:
from 20 to 140 mm

Available in Class SH with compressive strength of 200 kPa

Main applications

Thermal insulation for flat or pitched roofs under exposed or weighted down synthetic mantles also under bituminous mantles soldered cold
Thermal insulation for walls
Thermal insulation for pavements



Class S

Performances of THERMAL INSULATION

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90, i} = 0,024 \text{ W/mK}$$

Declared thermal conductivity
[UNI EN13165 Annex A and C]
Value determined at 10 °C

$\lambda_D = 0,028 \text{ W/mK}$ thicknesses from 30 to 70

$\lambda_D = 0,026 \text{ W/mK}$ thicknesses from 80 to 110

$\lambda_D = 0,025 \text{ W/mK}$ thicknesses from 120 to 140

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 30 | 0,93 | 1,07 |
| 40 | 0,70 | 1,43 |
| 50 | 0,56 | 1,79 |
| 60 | 0,47 | 2,14 |
| 70 | 0,40 | 2,50 |
| 80 | 0,33 | 3,08 |
| 90 | 0,29 | 3,46 |
| 100 | 0,26 | 3,85 |
| 110 | 0,24 | 4,23 |
| 120 | 0,21 | 4,80 |
| 130 | 0,19 | 5,20 |
| 140 | 0,18 | 5,60 |

Other features and performances

| | | |
|--|--|--|
| Board density | Average value with facing characteristics | 35 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | from 150 to 160 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | E |
| Specific heat capacity | | 1464 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu = 56 \pm 2$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 2% _w |
| Acoustic isolation to wall | [UNI EN ISO 140-3] [UNI EN ISO 717-1] for stratigraphy see technical data sheet | 54 dB |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C and +120 °C. For a short time they can also resist temperatures up to + 200 °C, or corresponding to the temperature of molten bitumen, without particular problems. | |

Guideline for drafting of TECHNICAL SPECIFICATIONS

STIFERITE's CLASS S is a thermal insulation board in polyiso (PIR) rigid foam of thickness....(*) , bonded between two saturated fibre glass facers having:

Declared thermal conductivity:

$$\lambda_D = \dots \text{ W/mK (EN 13165 Annex A and C)}$$

Compressive strength:

$$\text{minimum value} = \dots \text{ kPa (EN 826)}$$

Water vapour diffusion resistance factor:

$$\mu = 56 \text{ (EN 12086)}$$

Water vapour diffusion resistance:

$$Z = 8.0 \text{ m}^2/\text{hPa (EN 12086)}$$

Water absorption:

$$WL < 2 \% \text{ (EN 12087)}$$

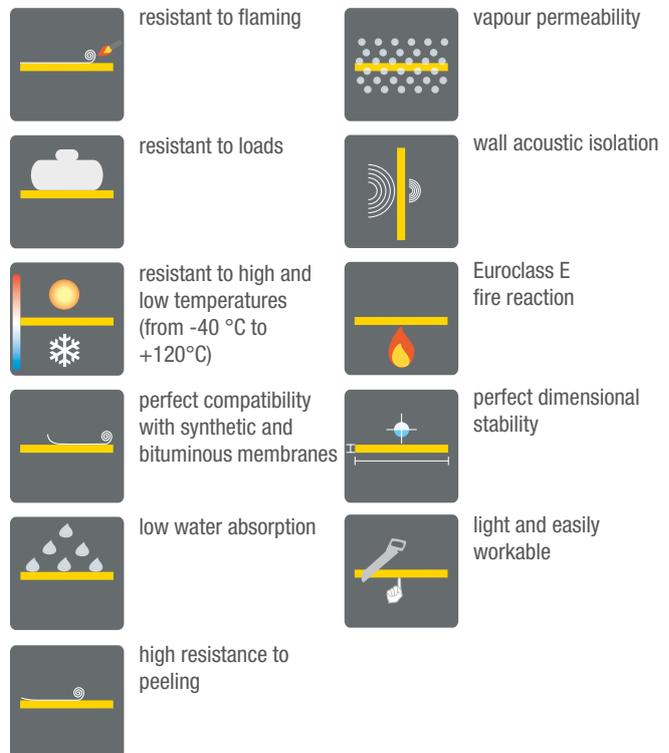
Euroclass reaction to fire:

$$E \text{ (EN 11925-2)}$$

Environmental Product Declaration EPD for thickness 60 mm (ISO 14040 and MSR 1999:2)

Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



For Other features and performances see the Technical Data Sheet available on line: www.stiferite.it

Class SK



Description

STIFERITE's **CLASS SK** is a high performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is bonded between two saturated fibre glass facers.

Standard Sizes:
mm 600 x 1200

Standard Thicknesses:
from 20 to 140 mm

Classification "Cappotto" systems based on the technical guide ETA

Main applications

Thermal insulation for outside walls
Thermal insulation for walls of ventilated or non-ventilated cladding
Insulation of thermal bridges
Thermal insulation for ceilings with skylight



Performances of THERMAL INSULATION

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90,1} = 0,024 \text{ W/mK}$$

Declared thermal conductivity
[UNI EN13165 Annex A and C]
Value determined at 10 °C

$\lambda_D = 0,028 \text{ W/mK}$ thicknesses from 30 to 70

$\lambda_D = 0,026 \text{ W/mK}$ thicknesses from 80 to 110

$\lambda_D = 0,025 \text{ W/mK}$ thicknesses from 120 to 140

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 20 | 1,40 | 0,71 |
| 30 | 0,93 | 1,07 |
| 40 | 0,70 | 1,43 |
| 50 | 0,56 | 1,79 |
| 60 | 0,47 | 2,14 |
| 70 | 0,40 | 2,50 |
| 80 | 0,33 | 3,08 |
| 90 | 0,29 | 3,46 |
| 100 | 0,26 | 3,85 |
| 110 | 0,24 | 4,23 |
| 120 | 0,21 | 4,80 |
| 130 | 0,19 | 5,20 |
| 140 | 0,18 | 5,60 |

Other features and performances

| | | |
|--|---|--|
| Board density | Average value with facing characteristics | 35 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | from 150 to 160 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | E |
| Specific heat capacity | | 1464 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu = 56 \pm 2$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 2% _w |
| Acoustic isolation to wall | [UNI EN ISO 140-3] [UNI EN ISO 717-1] for stratigraphy see technical data sheet | 52 dB |
| Pull through | [EN 16382] | more 750 N |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C and +120 °C. For a short time they can also resist temperatures up to +200 °C, or corresponding to the temperature of molten bitumen, without particular problems. | |

Guideline for drafting of TECHNICAL SPECIFICATIONS

STIFERITE's CLASS SK is a thermal insulation board in polyiso (PIR) rigid foam of thickness...(*) , bonded between two saturated fibre glass facers having:

Declared thermal conductivity:

$$\lambda_D = \dots \text{ W/mK (EN 13165 Annex A and C)}$$

Compressive strength:

minimum value = ... kPa (EN 826)

Water vapour diffusion resistance factor:

$$\mu = 56 \text{ (EN 12086)}$$

Water vapour diffusion resistance:

$$Z = 8.0 \text{ m}^2/\text{hPa (EN 12086)}$$

Water absorption:

WL < 2 % (EN 12087): thickness 20 - 110 mm

WL < 1 % (EN 12087): thickness 120 - 140 mm

Euroclass reaction to fire:

E (EN 11925-2)

Tensile strength perpendicular to faces:

> 80 kPa (EN 1607)

Class SK is used in external thermal insulation, as required by certified ETA.

Environmental Product Declaration EPD for thickness 60 mm (ISO 14040 and MSR 1999:2)

Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



perfect adhesion to skim coats, plasters and glues



wall acoustic isolation



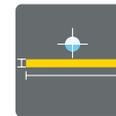
resistant to high and low temperatures (from -40 °C to +120°C)



Euroclass E fire reaction



high resistance to peeling



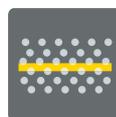
perfect dimensional stability



low water absorption



light and easily workable



vapour permeability

For Other features and performances see the Technical Data Sheet available on line: www.stiferite.it

FIRE B



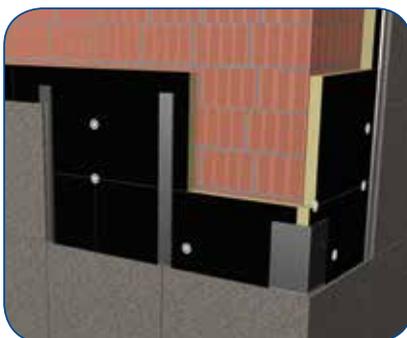
Description

STIFERITE's **FIRE B** is a high performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is bonded with facers made of mineral fibre glass on one side and the other with fibre glass and mineral fibre glass added (FIRE B facer®) for additional fire resistance.

Standard Sizes:
mm 600 x 1200
Standard Thicknesses:
from 20 to 140 mm

Main applications

Thermal insulation for ventilated walls
Any application where additional fire rating performance is required



Performances of THERMAL INSULATION

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90, i} = 0,024 \text{ W/mK}$$

Declared thermal conductivity
[UNI EN13165 Annex A and C]
Value determined at 10 °C

$$\lambda_D = 0,028 \text{ W/mK thicknesses from 30 to 70}$$

$$\lambda_D = 0,026 \text{ W/mK thicknesses from 80 to 110}$$

$$\lambda_D = 0,025 \text{ W/mK thicknesses from 120 to 140}$$

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 20 | 1,40 | 0,71 |
| 30 | 0,93 | 1,07 |
| 40 | 0,70 | 1,43 |
| 50 | 0,56 | 1,79 |
| 60 | 0,47 | 2,14 |
| 70 | 0,40 | 2,50 |
| 80 | 0,33 | 3,08 |
| 90 | 0,29 | 3,46 |
| 100 | 0,26 | 3,85 |
| 110 | 0,24 | 4,23 |
| 120 | 0,21 | 4,80 |
| 130 | 0,19 | 5,20 |
| 140 | 0,18 | 5,60 |

Other features and performances

| | | |
|--|---|--|
| Board density | Average value with facing characteristics | 47 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | from 150 to 160 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | B s1 d0 |
| Specific heat capacity | | 1464 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu = 56 \pm 2$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 2% _w |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C and +120 °C. | |

Guideline for drafting of TECHNICAL SPECIFICATIONS

STIFERITE's FIRE B is a thermal insulation board in polyiso (PIR) rigid foam of thickness...(*) bonded with facers made of mineral fibre glass on one side and the other with fibre glass and mineral fibre glass added (FIRE B facer®) for additional fire resistance having:

Declared thermal conductivity:

$$\lambda_D = \dots \text{ W/mK (EN 13165 Annex A and C)}$$

Compressive strength:

$$\text{minimum value} = \dots \text{ kPa (EN 826)}$$

Water vapour diffusion resistance factor:

$$\mu = 56 \text{ (EN 12086)}$$

Water vapour diffusion resistance:

$$Z = 8.0 \text{ m}^2/\text{hPa (EN 12086)}$$

Water absorption:

$$WL < 2 \% \text{ (EN 12087)}$$

Euroclass reaction to fire:

$$B s1 d0 \text{ (EN 13501-1)}$$

Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



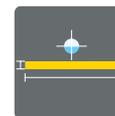
Euroclass reaction to fire
B s1 d0



resistant to loads



resistant to high and low temperatures
(from -40 °C to +120 °C)



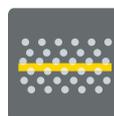
perfect dimensional stability



low water absorption



light and easily workable



vapour permeability

AI 4

Description

STIFERITE's AI 4 is a high performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is bonded between two embossed 40 µm thick aluminium facers.

Standard Sizes:

mm 600 x 1200

Standard Thicknesses:

from 20 to 60 mm. Available on order until 120 mm

Available in AI 6, covered with embossed aluminium 60 µm, and AI 8, covered with embossed aluminium 80 µm.

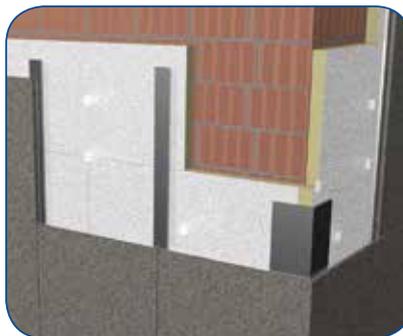
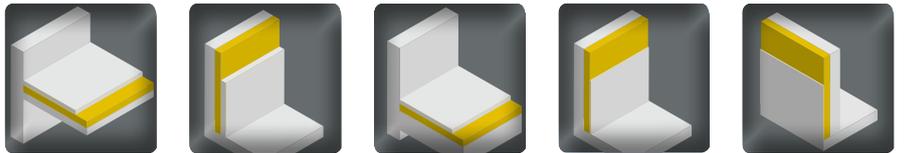
Main applications

Thermal insulation for standard and heated pavements

Thermal insulation for ventilated walls

Thermal insulation for walls where a vapour blocker is required

Thermal insulation for industrial applications



Available also is the **STIFERITE AV** series panels, bonded with facers of embossed aluminium on one side and saturated fibre glass on the other.

Suggested for applications where a vapour barrier (aluminium side) is required and adhesive is used (fibre glass side) for panel installation.

For technical specifications and performance of the series AV panels, see the related technical data sheets.

Performances of THERMAL INSULATION

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90, i} = 0,022 \text{ W/mK}$$

Declared thermal conductivity
[UNI EN13165 Annex A and C]
Value determined at 10 °C

$$\lambda_D = 0,023 \text{ W/mK}$$

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 20 | 1,15 | 0,87 |
| 30 | 0,77 | 1,30 |
| 40 | 0,58 | 1,74 |
| 50 | 0,46 | 2,17 |
| 60 | 0,38 | 2,61 |

Other features and performances

| | | |
|--|---|---|
| Board density | Average value with facing characteristics di spessore 40 µm | 40 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | da 150 a 160 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | D s2 d0 |
| Specific heat capacity | | 1392 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu > 89900$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 1% _w |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C and +120 °C. | |

Guideline for drafting of TECHNICAL SPECIFICATIONS

STIFERITE's AI 4 is a thermal insulation board in polyiso (PIR) rigid foam of thickness...(*) , bonded with two embossed 40 µm thick aluminium facers having:

Declared thermal conductivity:

$$\lambda_D = 0,023 \text{ W/mK (EN 13165 Annex A and C)}$$

Compressive strength:

minimum value = ... kPa (EN 826)

Water vapour diffusion resistance factor:

$$\mu > 89900 \text{ (EN 12086)}$$

Water vapour diffusion resistance:

$$Z = 13440 \text{ m}^2/\text{hPa (EN 12086)}$$

Water absorption:

$$WL < 1 \% \text{ (EN 12087)}$$

Euroclass reaction to fire:

$$D s2 d0 \text{ (EN 11925-2)}$$

Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



Euroclass reaction to fire
D s2 d0



wall acoustic isolation



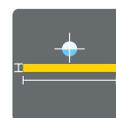
resistant to high and low temperatures
(da -40 °C a +120°C)



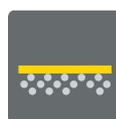
resistant to loads



low water absorption



perfect dimensional stability



barriera al vapore



light and easily workable

GT 3

GT 4

GT 5



Description

High performance **STIFERITE GT** insulation board bonded on one side with various types of bituminous membrane polymers:

GT3 Bonded to a 3kg/m² bituminous membrane polymer with fibre glass reinforcement

GT4 Bonded to a 4 mm bituminous membrane polymer reinforced with polyester non-woven fabric

GT5 Bonded to a 4,5kg/m² bituminous membrane polymer with polyester non-woven fabric reinforcement with a slate chips' finish.

Standard Sizes:

mm 1200 x 1200

Standard Thicknesses:

from 30 to 120 mm

The board have 10 cm of selvage.

Main applications

Thermal insulation with a waterproofing base for flat or pitched roofs



GT 3 - GT 4 - GT 5

Performances of THERMAL INSULATION

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90, i} = 0,022 \text{ W/mK}$$

Declared thermal conductivity
[UNI EN13165 Annex A and C]
Value determined at 10 °C

$$\lambda_D = 0,023 \text{ W/mK}$$

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 20 | 1,15 | 0,87 |
| 30 | 0,77 | 1,30 |
| 40 | 0,58 | 1,74 |
| 50 | 0,46 | 2,17 |
| 60 | 0,38 | 2,61 |
| 70 | 0,33 | 3,04 |
| 80 | 0,29 | 3,48 |
| 90 | 0,26 | 3,91 |
| 100 | 0,23 | 4,35 |
| 110 | 0,21 | 4,78 |
| 120 | 0,19 | 5,22 |

Other features and performances

| STIFERITE GT board | | |
|--|---|--|
| Board density | Average value with facing characteristics | 36 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | from 130 to 150 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | F |
| Specific heat capacity | | 1453 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu = 148 \pm 24$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 1%w |
| Water absorption per diffusion del vapore | [UNI EN 12088] | 0,43-0,41 kg/m ² |
| Pull through | [EN 16382] | more 800 N |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C and +120 °C. | |
| Waterproofing membrane property see Technical Data Sheet | | |

GT 3:

STIFERITE's GT3: is a thermal insulation board in polyiso (PIR) rigid foam of thickness...(*) , covered with two Duotwin® facers and one side bonded by a flame torch to a 3 kg/m² bituminous membrane polymer with fibre glass reinforcement.

GT 4:

STIFERITE's GT4: is a thermal insulation board in polyiso (PIR) rigid foam of thickness...(*) , covered with two Duotwin® facers and one side bonded to a 4 mm bituminous membrane polymer reinforced with polyester non-woven fabric.

GT 5:

STIFERITE's GT5: is a thermal insulation board in polyiso (PIR) rigid foam of thickness...(*) , covered with two Duotwin® facers and one side bonded to a 4,5kg/m² bituminous membrane polymer with polyester non-woven fabric reinforcement with a slate chips' finish.

All having:

Declared thermal conductivity:

$$\lambda_D = 0,023 \text{ W/mK (EN 13165 Annex A and C)}$$

Compressive strength:

minimum value = ... kPa (EN 826)

Water vapour diffusion resistance factor:

$$\mu = 148 \text{ (EN 12086)}$$

Water vapour diffusion resistance:

$$Z = 21 \text{ m}^2/\text{hPa (EN 12086)}$$

Water absorption:

$$WL < 1 \% \text{ (EN 12087)}$$

Euroclass reaction to fire:

$$F \text{ (EN 11925-2)}$$

Manufacturer must have ISO9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



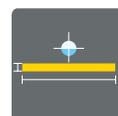
resistant to flaming



high resistance to peeling



perfect compatibility with waterproof membranes



perfect dimensional stability



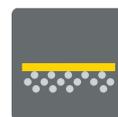
Euroclass F fire reaction



light and easily workable



resistant to high and low temperatures (from -40 °C to +120°C)



vapour barrier

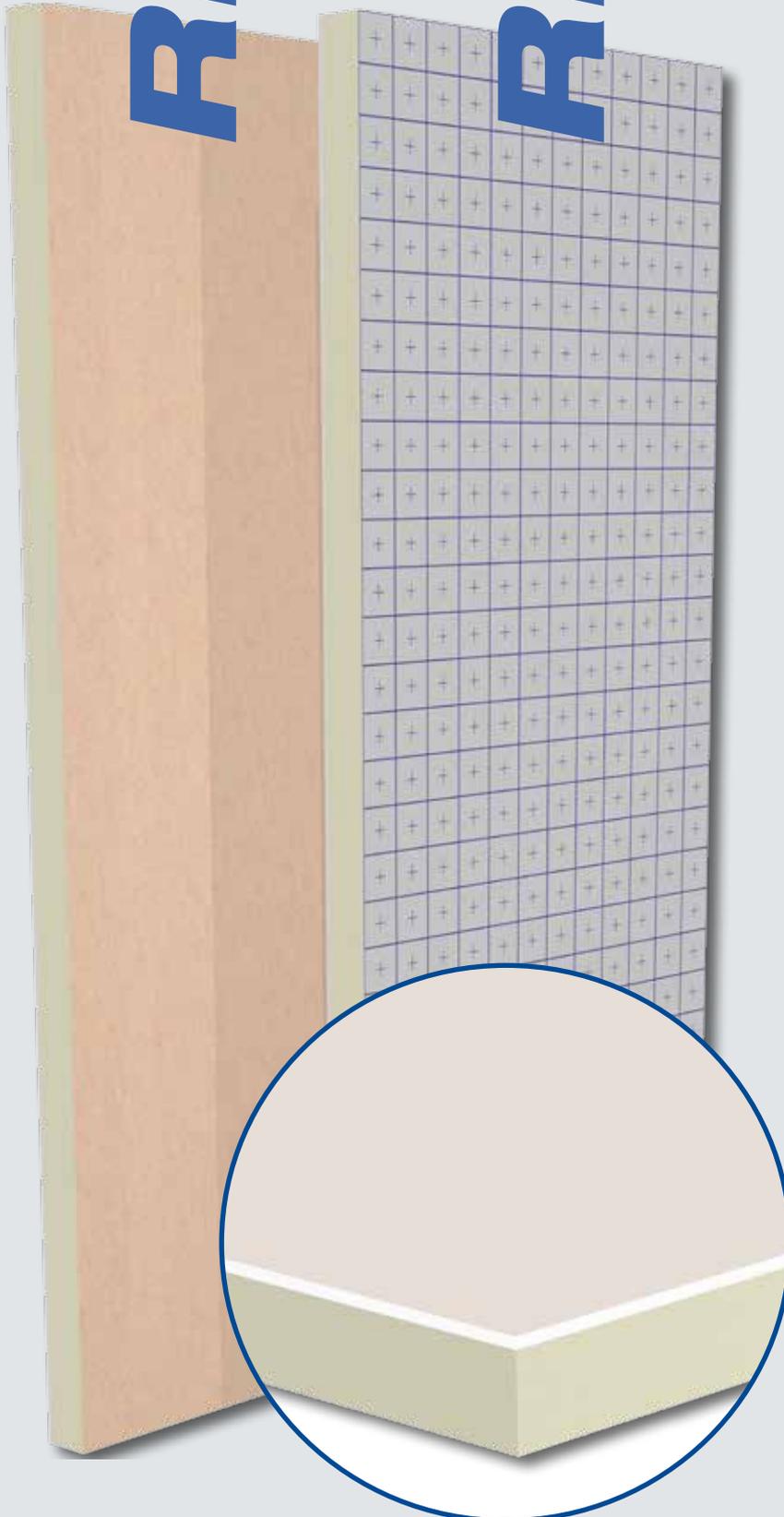


low water absorption

For Other features and performances see the Technical Data Sheet available on line: www.stiferite.it

RP 1

RP 3



Description

High performance STIFERITE's insulation boards bonded on one side to 13 mm or available by request, 9,5 mm thick plasterboard.

RP 1 Plasterboard bonded to **STIFERITE GT**

RP 3 Plasterboard bonded to **STIFERITE GTE**

Standard Sizes:

mm 1200 x 3000

Standard Thicknesses:

from 33 to 113 mm total

Main applications

Thermal insulation for inside walls
Thermal insulation for ceilings with a metal or wood frame

Note:

Flame torch soldering is NOT recommended with this product



RP1 - RP3

Performances of THERMAL INSULATION

RP1 - RP3

Average initial thermal conductivity [EN12667]

Value determined at 10 °C

$$\lambda_{90/90, i} = 0,022 \text{ W/mK}$$

Declared thermal conductivity

[UNI EN13165 Annex A and C]

Value determined at 10 °C

$$\lambda_D = 0,023 \text{ W/mK}$$

| Thickness d (mm) | | Declared thermal transmittance U _D (W/m ² K) | Declared thermal resistance R _D (m ² K/W) |
|------------------|-------------------|--|---|
| Tot. | PU + Plasterboard | | |
| 33 | 20 + 13 | 0,68 | 1,46 |
| 43 | 30 + 13 | 0,77 | 1,30 |
| 53 | 40 + 13 | 0,58 | 1,74 |
| 63 | 50 + 13 | 0,46 | 2,17 |
| 73 | 60 + 13 | 0,38 | 2,61 |
| 83 | 70 + 13 | 0,33 | 3,04 |
| 93 | 80 + 13 | 0,29 | 3,48 |
| 103 | 90 + 13 | 0,26 | 3,91 |
| 113 | 100 + 13 | 0,23 | 4,35 |
| 123 | 110 + 13 | 0,21 | 4,78 |
| 133 | 120 + 13 | 0,19 | 5,22 |

RP1 - RP2

Acoustic isolation to wall [UNI EN ISO 140-3 UNI EN ISO 717-1] for stratigraphy see technical data sheet

$$R_w 52 \text{ dB}$$

Plasterboard property

| | | |
|----------------------------|-------------------|-----------|
| Thermal conductivity | [UNI EN 10351-84] | 0,21 W/mK |
| Euroclass reaction to fire | [UNI EN 10351-1] | A 2 s1 d0 |

U e R si riferiscono al pannello accoppiato (PU + cartongesso)

STIFERITE's RP 1: is a thermal insulation board in polyiso (PIR) rigid foam of thickness...(*) , covered with two Duotwin facers and one side bonded on one side to 13mm or available by request, 9,5mm thick plasterboard.

STIFERITE's RP 3: is a thermal insulation board in polyiso (PIR) rigid foam of thickness...(*) , covered with two Gas-Tight aluminium foil facers and one side bonded to 13mm or available by request, 9,5mm thick plasterboard.

Both having:

Declared thermal conductivity:

RP 1 $\lambda_D = 0,023 \text{ W/mK}$ (EN 13165 Annex A and C)

RP 3 $\lambda_D = 0,023 \text{ W/mK}$ (EN 13165 Annex A and C)

Euroclass reaction to fire:

RP 1 B s1 d0 (EN 13501-1)

RP 3 B s1 d0 (EN 13501-1)

Compressive strength:

minimum value = ... kPa (EN 826)

Water vapour diffusion resistance factor:

RP 1 $\mu = 148$ (EN 12086)

RP 3 $\mu = > 89900$ (EN 12086)

Water vapour diffusion resistance:

RP 1 $Z = 21 \text{ m}^2/\text{hPa}$ (EN 12086)

RP 3 $Z = > 13440 \text{ m}^2/\text{hPa}$ (EN 12086)

Water absorption:

RP 1 $WL < 1 \%$ (EN 12087)

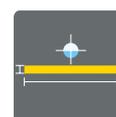
RP 3 $WL < 1 \%$ (EN 12087)

Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



Euroclass reaction to fire with plasterboard B s1 d0



perfect dimensional stability



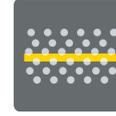
resistant to high and low temperatures (da -40 °C a +120°C)



light and easily workable



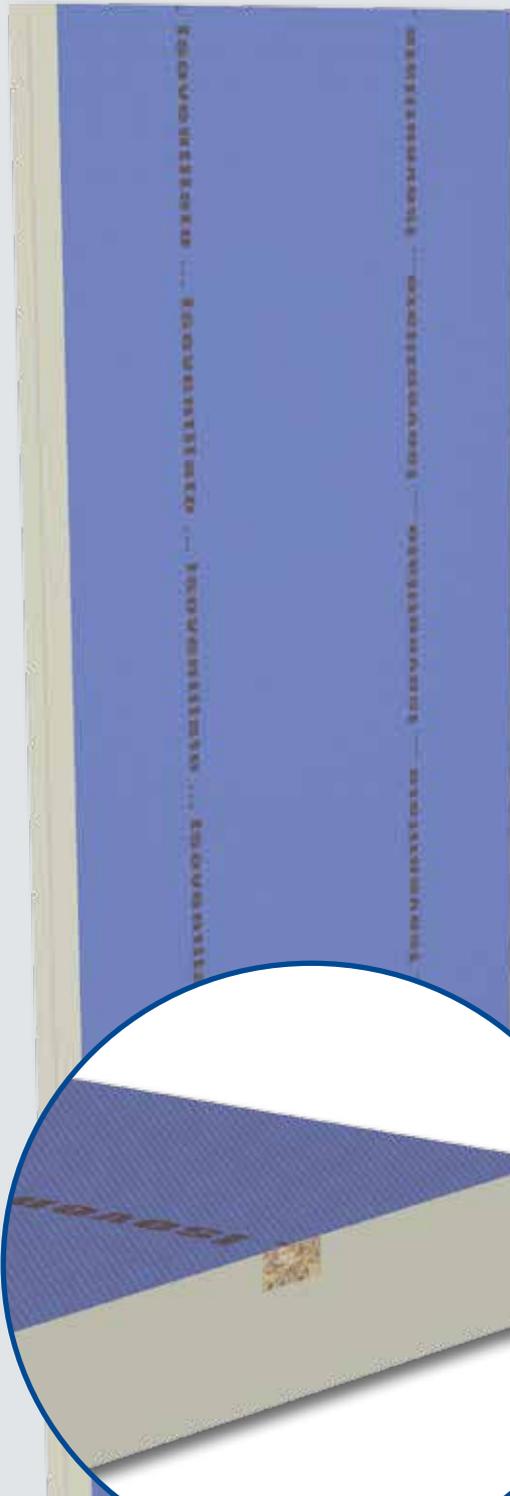
low water absorption



vapour permeability (RP1)

For Other features and performances see the Technical Data Sheet available on line: www.stiferite.it

Isoventilato



Description

STIFERITE's ISOVENTILATO is a high performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is covered by facers made of mineral fibre glass on one side and Lamiglas on the other.

Lamiglas is impermeable to water, but permeable to vapour.

The ISOVENTILATO panel also has two wooden (OSB3) laths built-in to the foam, along the entire length of the top.

Standard Sizes:

mm 1200 x 2400

Standard Thicknesses:

from 50 to 140 mm

Provided with rabbeting on the long sides.

Main applications

Thermal insulation for ventilated or micro-ventilated pitched roofs.



Isoventilato

ISOLAMENTO TERMICO

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90,1} = 0,024 \text{ W/mK}$$

Declared thermal conductivity

[UNI EN13165 Annex A and C]

Value determined at 10 °C

$$\lambda_D = 0,028 \text{ W/mK thicknesses from 50 a 70}$$

$$\lambda_D = 0,026 \text{ W/mK thicknesses from 80 a 110}$$

$$\lambda_D = 0,026 \text{ W/mK thicknesses from 120 to 140}$$

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 50 | 0,56 | 1,79 |
| 60 | 0,47 | 2,14 |
| 70 | 0,40 | 2,50 |
| 80 | 0,33 | 3,08 |
| 90 | 0,29 | 3,46 |
| 100 | 0,26 | 3,85 |
| 110 | 0,24 | 4,23 |
| 120 | 0,21 | 4,80 |
| 130 | 0,19 | 5,20 |
| 140 | 0,18 | 5,60 |

Other features and performances

| | | |
|--|---|--|
| Board density | Average value with facing characteristics | 43 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | from 140 to 150 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | E |
| Specific heat capacity | | 1729 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu = 68 \pm 9$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 2%w |
| Pull through | [EN 16382] | more 1200 N |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C and +120 °C. | |

Guideline for drafting of TECHNICAL SPECIFICATIONS

STIFERITE's ISOVENTILATO is a thermal insulation board in polyiso (PIR) rigid foam of thickness....(*), covered by facers made of mineral fibre glass on one side and Lami-glas on the other. The ISOVENTILATO panel also has two wooden (OSB3) laths built-in to the foam, along the entire length of the top. Having:

Declared thermal conductivity:

$$\lambda_D = \dots \text{ W/mK (EN 13165 Annex A and C)}$$

Compressive strength:

$$\text{minimum value} = \dots \text{ kPa (EN 826)}$$

Water vapour diffusion resistance factor:

$$\mu = 68 \text{ (EN 12086)}$$

Water vapour diffusion resistance:

$$Z = 9.6 \text{ m}^2/\text{hPa (EN 12086)}$$

Water absorption:

$$WL < 2 \% \text{ (EN 12087)}$$

Euroclass reaction to fire:

$$E \text{ (EN 11925-2)}$$

Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



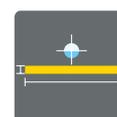
resistant to loads



light and easily workable



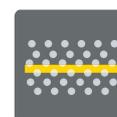
resistant to high and low temperatures (from -40 °C to +120°C)



perfect dimensional stability



low water absorption

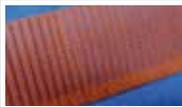
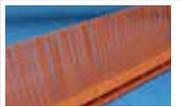


vapour permeability



Euroclass E fire reaction

Accessories for Isoventilato laying

| | | | | | | |
|--|---|---|---|--|---|---|
|  |  |  |  |  |  |  |
| Connection profile | Aluminium/butyle rubber | Ridge beam raisers | Isoband for ventilated roof pitches | Metal bird-stop profile | Polypropylene bird-stop profile with double row of staggered teeth | Polypropylene bird-stop profile with PP raised edge |

For Other features and performances see the Technical Data Sheet available on line: www.stiferite.it

GT Wind



Description

STIFERITE's GT Wind is a high performance insulation board made of expanded rigid Polyisocyanate (PIR) closed cell foam free of CFC or HCFC. It is bonded with two-way ventilating slats and with 12mm OSB3 boards.

Standard Sizes:
mm 585 x 1200
Standard Thicknesses:
from 92 to 172 mm

Main applications

Thermal insulation for ventilated pitched roofs.



Performances of THERMAL INSULATION

Average initial thermal conductivity [EN12667]
Value determined at 10 °C

$$\lambda_{90/90, i} = 0,022 \text{ W/mK}$$

Declared thermal conductivity
[UNI EN13165 Annex A and C]
Value determined at 10 °C

$$\lambda_D = 0,023 \text{ W/mK}$$

| Thickness d (mm) | Declared Thermal Transmittance U_D (W/m ² K) | Declared Thermal Resistance R_D (m ² K/W) |
|------------------|---|--|
| 50 | 0,46 | 2,17 |
| 60 | 0,38 | 2,61 |
| 70 | 0,33 | 3,04 |
| 80 | 0,29 | 3,48 |
| 90 | 0,26 | 3,91 |
| 100 | 0,23 | 4,35 |
| 110 | 0,21 | 4,78 |
| 120 | 0,19 | 5,22 |
| 130 | 0,18 | 5,65 |
| 140 | 0,16 | 6,09 |

Other features and performances

| | | |
|--|---|--|
| Board density | Average value with facing characteristics | 36 kg/m ³ ± 1,5 |
| Compressive strength | Value determined at 10% deformation [EN 826] | from 130 to 150 kPa depending on the thickness |
| Euroclass reaction to fire | [EN 13501 -1] [EN 13501 -2] [EN 13823 -SBI] | F |
| Specific heat capacity | | 1453 J/kg K |
| Water vapour diffusion resistance factor | [EN 12086] | $\mu = 148 \pm 24$ |
| Water absorption | Total immersion for 28 days [EN 12087] | less than 1%w |
| Fonoisolamento acustico in copertura | [UNI EN ISO 140-3] [UNI EN ISO 717-1] for stratigraphy see technical data sheet | 38 dB |
| Stability to the temperature | Used in a range of continuous temperatures included between -40 °C e +120 °C. | |

Guideline for drafting of TECHNICAL SPECIFICATIONS

Pre-assembled thermal insulating system for ventilated roofs **STIFERITE GT Wind** is composed of:

- a rigid Polyiso (PIR) foam panel, thickness ... (*), plane dimensions 585 x 1200 mm, with Polytwin® facing on both sides, provided with lateral rebating
- two Polyiso foam supporting battens, 40 mm thick, to form a two-way ventilation chamber with prevalent direction
- phenolic strand board, oriented and pressed at high pressure (OSB3), suitable for use in damp environments, 12 mm thick.

For different thicknesses, refer to the data provided in the technical sheet.

Regulations for CE marking:

GTC Stiferite panel UNI EN 13165
OSB3 board UNI EN 300

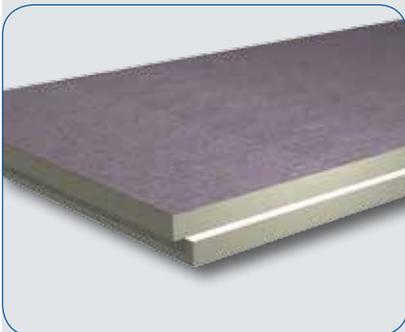
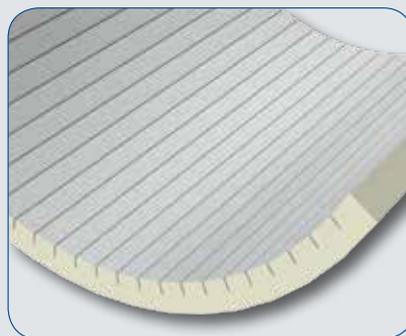
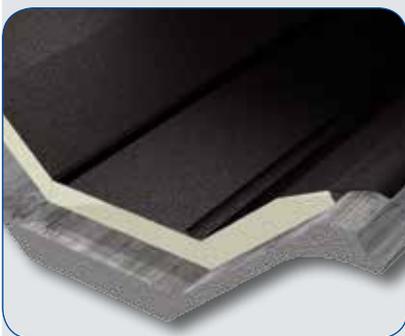
Manufacturer must have ISO 9001 quality system certification, with the CE marking on the whole range.

(*) The parameters not indicated vary according to thickness. To enter the values corresponding to the thickness used, see the data indicated in the technical sheet.



For Other features and performances see the Technical Data Sheet available on line: www.stiferite.it

Special Processing



Description

All **STIFERITE's** panels may be made to required sizes (minimum quantities may apply) and/or made with special processing, for example: rabbeting, cuts, markings and milling for perfect adherence to uneven surfaces.

Panels may be made to specific construction details and requirements, including those panels bonded with polymer bituminous membranes.

Examples of special processing:

- ▶ Male-female groove fitting and rabbeting on all four sides
- ▶ Circular sectors for insulation of tanks and curved surfaces
- ▶ Pre-bonded panels for insulating prefabricated roof tiles
- ▶ Flat and pre-marked panels made to measure for industrial insulation and prefabricated construction elements

TECHNICAL INFORMATION

Further information about the products (application diagrams, performances and technical characteristics, industrial tolerances, etc.) may be found in the Stiferite technical documentation.

Leaflets and technical sheets may be requested from the Stiferite Commercial Department or consulted and printed directly on the site www.stiferite.it

CONTACTS

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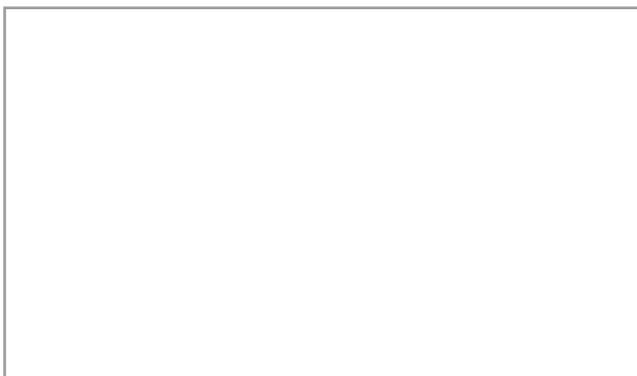
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