

# ISOVENTILATO



## Description

**STIFERITE ISOVENTILATO** is a high performance insulation board manufactured from CFC or HCFC free, closed cell polyisocyanurate (PIR) foam. It's covered on one side by mineral fiber glass and on one side by a facer which gives waterproof property (0,2 bar) and permeable to vapour. Isoventilato board has two wooden (OSB3) laths along the entire length upper face.

## Guideline for drafting of technical specifications

Thermal insulation **STIFERITE ISOVENTILATO** in polyiso rigid foam (PIR) of thickness(\*), covered on one side by mineral fiber glass and on one side by a facer which gives waterproof property (0,2 bar) and permeable to vapour, and with two wooden (OSB3) laths along the entire length upper face, has:

Declared thermal resistance:  $R_d = \Psi \text{ m}^2\text{K/W}$  (EN 13165 Annex A and C)

... (it is recommended to complete the technical specification using the most relevant features and performance for the specific application)

**STIFERITE ISOVENTILATO** is produced of Company certified according to: **UNI EN ISO 9001:2015** quality management system, **UNI EN ISO 14001:2015** environmental management system, **UNI EN ISO 45001:2018** occupational health and safety management system, and it has CE marking and labelling. The **Environmental Product Declaration (EPD)**, verified by the Third Party Liability, and the **Environmental Minimum Criteria (CAM)** according to **Green Public Procurement (GPP)** are available.

(\* ) Parameters change according to thickness or system. To determine the values corresponding to the thickness used, please use the specifications indicated on this technical sheet.

## Dimensions

length and width  
600 x 1200 mm  
nominal thickness [d] EN 823:  
from 50 to 140 mm

## Main applications

Insulation of pitched ventilated and microventilated roofs



## MAIN CHARACTERISTICS AND PERFORMANCE - Relevant to the CE marking [UNI EN 13165]

### Declared thermal conductivity - $\lambda_d$ [W/mK]

UNI EN 13165 Annexi A e C

Value determined at an average temperature of 10°C  
see table - values according to thickness

### Declared thermal resistance - $R_d = d/\lambda_d$ - [m<sup>2</sup>K/W]

see table - values according to thickness

### Declared thermal transmittance - $U_d = \lambda_d/d$ [W/m<sup>2</sup>K]

see table - values according to thickness

### Reaction to fire

EN 13501-1, EN 11925-2, EN 13823

**E EUROCLASS**

### Compressive stress at 10% deformation - $\sigma_{10}$ [kPa]

EN 826

> **140** [CS(10/Y)140] CE Designation code

### Tensile strength perpendicular to faces - $\sigma_{mt}$ [kPa]

EN 1607

> **35** [TR35] CE Designation code

### Water vapour diffusion resistance factor - $\mu$

EN 12086

**68 ± 9** [MU68] CE Designation code

### Short term water absorption by partial immersion [kg/m<sup>2</sup>]

EN 1609

< **0,2** [WS(P)0,2] CE Designation code

### Long term water absorption by total immersion [% weight]

EN 12087

< **2** per d < 120 mm [WL(T)2] CE Designation code

< **1** per d ≥ 120 mm [WL(T)1] CE Designation code

### Deviation from flatness after one-sided wetting [mm]

EN 13165

≤ **10** [FW10] CE Designation code

### Flatness tolerance $S_{max}$ [mm]

EN 825

± **10** Area > 0,75 m<sup>2</sup>

d mm	$\lambda_d$ W/mK	$R_d$ m <sup>2</sup> K/W	$U_d$ W/m <sup>2</sup> K
50	0,026	1,92	0,52
60		2,31	0,43
70		2,69	0,37
80		3,08	0,33
100	0,025	4,00	0,25
120		4,80	0,21
140		5,60	0,18

### Dimensional stability [level]

EN 1604

**48 h, 70° C, 90% R.H.**

**3** per d < 60 mm [DS(70;90)3] CE Designation code

**4** per d ≥ 60 mm [DS(70;90)4] CE Designation code

**48 h, -20° C**

**2** [DS(-20;0)2] CE Designation code

### Tolerances [mm]

EN 13165

**Length and width**

± **5** < 1000 mm [T2] CE Designation code

± **7,5** da 1001 a 2000 mm [T2] CE Designation code

### Thickness [mm]

± **2** < 50 mm [T2] CE Designation code

± **3** da 50 a 75 mm [T2] CE Designation code

+ **5/-2** ≥ 75 mm [T2] CE Designation code

## OTHER CHARACTERISTICS AND PERFORMANCE

- **Overall density -  $\rho$  [kg/m<sup>3</sup>]**  
EN1602 Board average value  
**43 ± 1,5**
- **Specific heat - Cp [J/kg° K]**  
Average value  
**1729**
- **Compressive stress at 2% deformation -  $\sigma_2$  [kg/m<sup>2</sup>]**  
EN 826  
**> 5000**
- **Deformation under compressive load and temperature conditions -  $\epsilon_d$  [%]**  
EN 1605  
**≤ 5 - load 20 kPa at 80° C for 48 h** Designation code CE [DLT(1)5]
- **Compressive Creep -  $\epsilon_d$  [%]**  
EN 1606  
**< 1.5 d = 200 mm** [CC(1.5/1.0/50)25] CE Designation code
- **Pull-through resistance - [N]**  
EN 16382  
**> 1200**
- **Water vapour resistance - Z [m<sup>2</sup>hPa/mg]**  
EN 12086  
**3,8 - 9,6**
- **Dimensional stability [% Relative changes]**  
EN 1604  
**48 h, 70° C**  
**< 1**
- **Weight percentage of recycled material - [%]**  
Insulation foam  
**> 4**

## ADDITIONAL REPORTS AND CERTIFICATION

- **Management System Certification:**
  - UNI EN ISO 9001:2015 quality management system,
  - UNI EN ISO 14001:2015 environmental management system,
  - OHSAS 18001:2007 occupational health and safety management system
- **Environmental Product Declaration (EPD), by the Third Party Liability**  
ISO 14025 and EN 15804
- **Waterproof board joints covered by Isoventilato Tape**  
EN 13984 and EN 13859-1  
**W1**
- **Bend behavior of the roof system**  
Test reports are available on request
- **Reaction to fire - continuous smouldering combustion**  
EN 16733  
**No continuous smouldering combustion**

## NOTES

### ■ Temperature stability

Stiferite panels can be used in a continuous temperature range of -40° C to +110° C. For periods of time they can withstand temperatures up to + 200° C, or equivalent to the softening temperature of bitumen, without any particular problems. Long exposures at temperatures above + 110° C may cause deformations to the foam or coatings, but do not cause sublimation or melting.

### ■ Aspect

Any small non-adhesion areas between the facers and the foam or holes originate from the production process and they do not in any way affect the physical-mechanical properties of the panels. A prolonged exposure of polyurethane foam to UV rays can cause surface oxidation, the phenomenon does not affect the basic characteristics and performance of the panel.

### ■ Packaging & Storage

STIFERITE panels of standard sizes are normally packed with PE, in closed packages with CE mark label. Store the packages raised from the ground. For long periods, store the packages in wet area.

### ■ Warning

The data shown in this sheet are binding for the features and performances provided by the CE marking. Other features and additional information may be modified even if no specific signal is available.

### ■ Other notes

To obtain technical data not covered in this Technical Data Sheet, contact the Stiferite Technical Office