



European Technical Assessment

ETA 21/0990 of 02/02/2022

General Part

Technical Assessment Body issuing the ETA:

TECNALIA RESEARCH & INNOVATION

Trade name of the construction product

ISOVER INSULSAFE33

Product family to which the construction product belongs

Thermal insulation made of loose mineral wool

Manufacturer

SAINT-GOBAIN ITALIA S.p.A
Via Bensi 8
20152 Milano, Italy

Manufacturing plant

SAINT-GOBAIN ITALIA S.p.A
Vidalengo Plant, 32/34
Vidalengo di Caravaggio (BG), Italy

This European Technical Assessment contains

8 pages including 1 Annex which form an integral part of this assessment.

This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of

EAD 040729-00-1201 Thermal Insulation made of loose mineral wool

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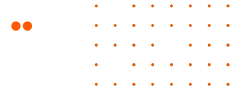


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Specific parts

1. Technical description of the product

The European Technical Assessment applies to the thermal insulation product made of loose fill mineral wool (MW) with the designation:

"Isover Insulsafe33"

Thermo-acoustic insulation product "Isover Insulsafe33" is a loose fill white glass wool (98,5-99,5%) with additional components to improve product performance over time and during application (between 0,5-1,5%), according to EN 14064-1.

The European Technical Assessment has been issued for the product on the basis of agreed data/information, deposited with TECNALIA, which identifies the product that has been assessed. The European Technical Assessment applies only to product corresponding to this agreed data/information.

2. Specification of the intended use(s) in accordance with the applicable European Assessment Document (hereinafter EAD)

2.1. Intended use

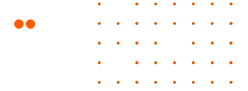
The thermal insulation material serves for the production of insulation layers, not exposed to compression loads, by means of machine processing at the place of use. The machine processing is carried out in dry conditions.

The thermal insulation product "Isover Insulsafe33" can be used for the following intended uses:

- Exposed insulation on horizontal or moderately pitched areas ($\leq 10^\circ$) (e. g. on the ceiling or between beams)
- Space-filling insulation in closed cavities of external and interior walls (e.g. timber frame constructions, light steel frame partition with boards, double wall masonry with core insulation and similar structures).
- Insulation in closed cavities between rafters and timber beams as well as in cavities of corresponding structures.

The performances given in Section 3 are only valid if the thermal insulation product is installed according to the manufacture's installation instructions, used in compliance with the specifications and conditions given in Annex A and if they are protected from precipitation, wetting or weathering in built-in state and during transport, storage and installation.

The design value of the thermal conductivity shall be laid down according to relevant national provisions.



3. Performance of the product and references to the methods used for its assessment

For sampling, conditioning and testing, the provisions of the EAD 040729-00-1201 "Thermal insulation made of loose mineral wool" have been applied

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire test acc. to EN 13501-1:2007+A1:2009	Class A1
Organic content test acc. to EN 13820:2003 (percentage per mass)	≤ 1,0 %
Propensity to undergo continuous smouldering test acc. to EN 16733:2016	Test passed – The product shows no propensity to undergo continuous smouldering

Table 1: Safety in case of fire

3.2 Energy economy and heat retention

Essential characteristic	Performance
Thermal conductivity at mean reference temperature of 10°C test acc. to EN 12667:2001 in accordance with EN 14064-1:2010, and the declared value for a moisture content of the insulation material at 23 °C and 50 % relative humidity	<u>Density 15 kg/m³</u> $\lambda_D = 0,041 \text{ W/(mK)}$ $\lambda_{D(23,50)} = 0,042 \text{ W/(mK)}$ <u>Density 25 kg/m³</u> $\lambda_D = 0,035 \text{ W/(mK)}$ $\lambda_{D(23,50)} = 0,036 \text{ W/(mK)}$ <u>Density 30 kg/m³</u> $\lambda_D = 0,033 \text{ W/(mK)}$ $\lambda_{D(23,50)} = 0,034 \text{ W/(mK)}$
Conversion of humidity acc. to EN ISO 10456:2007+AC:2009 (moisture conversion factor 23°C/ 50% rel. humidity to 23°C/ 80% rel. humidity)	$F_m = 1,00$
Short term water absorption	$W_p \leq 0,18 \text{ kg/m}^2$
Long term water absorption	$W_{lp} \leq 1,0 \text{ kg/m}^2$
Bulk density in case of free placing (exposed insulation)	15 kg/m ³ to 20 kg/m ³
Bulk density in case of use in closed cavities (space- filling)	25 kg/m ³ to 35 kg/m ³
Water repellency	Performance not assessed

Essential characteristic	Performance
Water vapour diffusion resistance coefficient	$\mu = 1$
Settling under impact excitation in the case of free placing (e.g. on the ceiling or between beams) (S_v)	$S_v \leq 11,5\%$ at a minimum bulk density of 15 kg/m^3 and a maximum thickness of 330 mm
Settling under impact excitation in the case of blowing into closed cavities (e.g. on ceilings) (S_v)	$S_v \leq 7\%$ at a minimum bulk density of 25 kg/m^3 and a maximum thickness of 330 mm
Settling under vibration applied in cavities of walls and between beams (S_d)	$S_d = 0\%$; SC 0 acc. to EN 15101-1:2013 ($\leq 1\%$) at a minimum bulk density of 25 kg/m^3 and a maximum thickness of 100 mm $S_d = 0\%$; SC 0 acc. to EN 15101-1:2013 ($\leq 1\%$) at a minimum bulk density of 30 kg/m^3 and a maximum thickness of 300 mm
Settling under constant temperature and humidity conditions (S_{cli})	$S_{cli} \leq 3\%$ at a minimum bulk density of 15 kg/m^3 $S_{cli} \leq 1,5\%$ at a minimum bulk density of 25 kg/m^3
Settling under cyclical temperature and cyclic humidity conditions (S_{cyc})	S1 acc. to EN 14064-1:2010 ($\leq 1\%$) at a minimum bulk density of 15 kg/m^3
Airflow resistance test acc. to EN 29053:1993, method A	$< 16 \text{ kPa}\cdot\text{s/m}^2$ at density of 30 kg/m^3

Table 2: Energy economy and heat retention

4. Assessment and verification of constancy of performance (AVCP) system applied, with reference to its legal base

In accordance with the European Assessment Document EAD 040729-00-1201, the applicable European legal act is: 1999/91/EC.

The system to be applied is: 3.

In addition, with regard to reaction to fire (including propensity to undergo continuous smouldering) the applicable European legal act is: 1999/91/EC (in accordance with the decision 96/603/EC).

The system to be applied is: 1.

5. Technical details necessary for the implementation of the AVCP system, as provided for in the applicable EAD

Technical details necessary for the implementation of the Assessment and Verification of Constancy of Performance (AVCP) system are laid down in the control plan deposited at Tecna Research & Innovation.

The Control Plan is a confidential part of the ETA and is only handed over to the notified body involved in the assessment and verification of constancy of performance.

Issued in Azpeitia, on 02/02/2022



A handwritten signature in blue ink, appearing to read "Miguel Mateos".

Miguel Mateos

Innovation and Conformity Assessment Point

Tecna Research & Innovation



ANNEX A

The performances of the thermal insulation products given in Section 3 are valid if the following will be considered concerning installation and use:

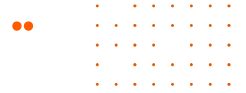
- Densities at built-in stage:

Area of application	Density (kg/m ³)
Exposed insulation on horizontal or moderately pitched areas ($\leq 10^\circ$) (e. g. on the ceiling or between beams)	15 - 20
Space-filling insulation in closed cavities of external and interior walls (e.g. timber frame constructions, light steel frame partition with boards, double wall masonry with core insulation and similar structures)	25 – 30 (for lower thickness)
	30 – 35 (for higher thickness)
Insulation in closed cavities between rafters and timber beams as well as in cavities of corresponding structures	25 - 35

- The density is determined by calculation as a quotient from the mass of the material brought in and the full volume.
- The thermal insulation layer has a constant installation thickness taking account of the nominal thickness. For that purpose suitable height marks are be arranged by the executing company in sufficient distances before the processing. The executing company check the installation thickness and the density.
- When calculating the thermal resistance of the construction elements, the nominal thickness of the thermal insulation layer is applied as follows:

Processing of the insulation material	Nominal thickness
Exposed insulation on horizontal or moderately pitched areas ($\leq 10^\circ$) (e.g. on the ceiling or between beams)	installation thickness of the insulation material minus 11,5 %
Space-filling insulation in closed cavities of external and interior walls (e.g. timber frame constructions, light steel frame partition with boards, double wall masonry and similar structures)	clear span of the filled cavity
Insulation in closed cavities between rafters and timber beams as well as in cavities of corresponding structures	clear span of the filled cavity

- The requirements concerning ventilation openings and the ventilation section above the thermal insulation layer are considered.
- In case of installation on pitched or arched areas slipping of the thermal insulation product is prevented by suitable measures.
- In case of use as space-filling thermal insulation in closed cavities it is made sure by appropriate measures (e. g. control drillings) that the cavity is completely filled with the thermal insulation product.



- In case of installation as core insulation it is checked in advance that the facing wall is in a proper condition and has no moisture penetration. Cracks or imperfections in the masonry joints are to be repaired before installing the insulation.