

Type Approval and decision on production control 2706/92

ISOVER Cleantec® minerla wool products – Internal insulation for ventilation ducts

Holder/Issued to

Saint-Gobain Sweden AB, ISOVER

SE-267 82 Billesholm, Sweden

Product description

ISOVER Cleantec® is an insulation product of non-combustible glass wool or stone wool batts, with a factoryapplied surface layer.

ISOVER Cleantec® G: surface layer of black glass cloth, mass per unit area 150 g/m². ISOVER Cleantec® PLUS: surface layer of perforated aluminium with fibre glas mesh, mass per unit area $89 \, \text{g/m}^2$.

Density glass wool 27-115 kg/m³ and density stoen wool 40-150 kg/m³.

Intended use

Internal insulation of rectangular ventilation ducts, mufflers, air treatment units and duct components.

Trade name

ISOVER Cleantec® G, ISOVER Cleantec® PLUS

Approval

The products satisfy the requirements set forth in chapter 8, 4 § 2 and 3 PBL, in respect to and under conditions stated in this type approval, and are therefore approved in accordance with the provisions of the following sections of Boverket Building Regulations (BBR), issued by the National Board of Housing, Building and Planning.

Air treatment installations, general 5:526 Material 6:11 Micro-organisms 6:24

Cleanability* 6:254, 1st sentence

* The insulation must not be installed in a duct that carry air which contains greasy or sticky compounds, e.g. in evacuation ducts. Steel brushes must not be used when cleaning. Insulation with a surface layer of aluminium can be carefully cleaned with a soft plastic brush. When installing batts with visible joins between them, sheet metal profiles must be used. The profiles must overlap the surface layer by at least 20 mm. Where the joins are hidden, at least 20 mm of the surface layer must always be covered. Where there is a risk of the insulation hanging down, washers without projecting pins must be used, AGM type or equivalent.

Associated documents

"Product description with design and assembly instructions for ISOVER Cleantec® products such as thermal insulation and sound-absorbing materials", dated 2022-04-07.

Type Approval 2706/92 | 2022-04-19 RISE Research Institutes of Sweden AB | Certification

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Type Approval and decision on production control

Control

The factory production control (FPC) is monitored by an independent inspection body. Control plan: Ref no. 210-99-0716 dated 2018-03-27, Inspection body: RISE

When the building proprietor performs inspection at the building site, markings shall be checked to ensure that the correct products have been supplied and that they are used in accordance with the conditions in this type approval and associated documents. Further the product shall be accompanied by a manufacturer's assurance, certifying that the product has been manufactured in accordance with the documents on which this type approval is based.

Manufacturing place

Production control includes the following place: Saint-Gobain Sweden AB, Storgatan 29, Billesholm, Sweden

Marking

The products are to be marked according to the CE-marking regulation. Associated documents must be provided with the national Board of Housing, Building and Planning's registered trademark (***T**), type approval number (2706/92) and RISE accreditation number (RISE 1002).

Basis for approval

Reports no. 9P08220-01, -02, -03, -04, O100291-121270 and O100291-186436 from RISE and reports 1931550-1 and -2 from CETIAT, France.

Comments

The insulation, including the surface layer, is CE-marked in accordance with EN 14303 and fullfils the requirements for class A1 or A2-s1,d0 according to EN 13501-1.

Associated documents shall accompany the product or by other means be available to users of the product.

This type approval supersedes the previous type approval with the same number dated 2018-01-29, valid through 2020-01-29.

Validity

Valid through 2027-04-18.

Validity of this type approval can be verified on our website.

The validity of this type approval expires when the type approved product with the intended use according to this type approval shall be CE-marked according to the Construction Products Regulation (EU) 305/2011.

Stefan Coric

 $This is a translation from the Swedish \ original \ document. \ In \ the \ event \ of \ any \ dispute \ as \ to \ its \ content, the \ Swedish \ text \ shall \ take \ precedence.$



Datum/*Date* 2022-04-07

Vår ref/Our ref HG/PEF

Product description with design and assembly instructions for ISOVER Cleantec® products such as thermal insulation and sound- absorbing materials.

Product descriptions

ISOVER Cleantec® is a product range for interior insulation in ventilation ducts, silencers, and plant, as well as ventilation components. Products have a factory-applied surface on non-flammable glass- or stone wool.

ISOVER Cleantec® products exist in three surface variants and in the following density ranges:

ISOVER Cleantec® G: Glass- or stone wool board faced by a glass

fabric.

Density: Glass wool: 27-115 kg/m³

Stone wool: 40-150kg/m³

ISOVER Cleantec® PLUS: Glass- or stone wool board faced by

perforated reinforced aluminium foil.

Density: Glass wool: 27-115 kg/m³

Stone wool: 40-150kg/m³

The exact product specification is defined by the product number, eg:

ISOVER Cleantec[®] **G35**. Glass wool: Non-flammable glass wool board, density 35kg/m³, with outer facing of glass fabric. Euroclass: A2-s1,d0.

ISOVER Cleantec® **PLUS.** Glass wool: Non-flammable glass wool board, density 35kg/m³, with outer facing of perforated reinforced aluminium foil. Euroclass: A2-s1,d0.

ISOVER Cleantec[®] G100 Stone wool: Non-flammable stone wool board, density 100kg/m³, with outer facing of glass fabric. Euroclass: A1.



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Facing
G=glass fabric
PLUS = perforated reinforce

PLUS = perforated reinforced aluminium foil

Range of use

Interior thermal insulation and noise damping in ventilation ducts, noise dampers, plant and ventilation components.

Range of temperature

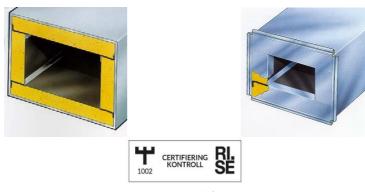
Surface may continuously be exposed to temperatures between - 30 and + $50\,^{\circ}$ C.

Assembly

Boards assembled in ducting using fixing strips. All board cutting, drilling, and end finishing, both along and across the duct, are finished with fixing strip which covers the board edge and at least 20 mm of the outer surface. Fixing strip should be riveted or welded to the duct plating. Maximum board size is 1200X2400 mm. There should be no damage or tears in the outer facing.

An example of longitudinal strip assembly is given in the diagram below. Boards are located along the two larger sides of the duct so that they fit right up to the duct walls. Then Z-profile strips hold the other two boards in place. The Z-profiles are fixed to the duct plating as in the instructions above.

If there is a risk that the insulation might protrude, AGM washers or similar, ie flat washers without protruding pins, should be used. The washer should have a diameter of at least 38 mm, and the length of the pin should be the same as the thickness of the insulation.



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Holes and tears in ISOVER Cleantec® PLUS. can be repaired with ISOVER Cleantec® special tape but must not be larger than 25x400mm.

ISOVER Cleantec® PLUS board can also be wet cleaned.

Products can be washed using the following methods: If the boards are removed from the ventilation duct:

- Manual washing with a sponge or rag.
- Low-pressure washing with a foaming detergent applied to the Cleantec[®] facing. Water is used only to remove dirt and detergent residues from the Cleantec[®] facing.
- High-pressure washing can be used with a foaming detergent applied to the Cleantec[®] facing; high-pressure washing down gives a certain finished effect, but note that the main object is to use as little water as possible to remove dirt and detergent residues from the Cleantec[®] facing.

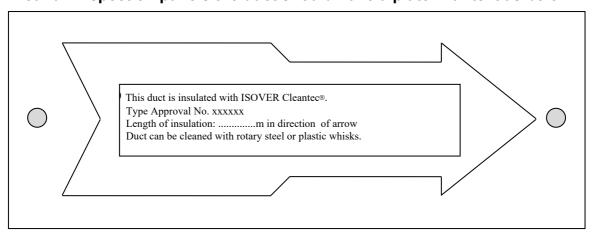
Drying off with a sponge or rag can be done to remove any loose dirt particles, as well as to obtain a dry Cleantec[®] board more quickly.

Note!

During washing, maximum water temperature should be 40°C. In high-pressure washing, the nozzle spray angle should be at least 30°. The distance from the Cleantec® board should be 300-500mm, and the maximum working pressure 80 bars.

If Cleantec[®] board is located in, eg, a sheet metal frame, it must be drained at the base.

Near all inspection panels the duct should have a plate with text as below:



If the duct is insulated in both directions from the inspection hatch, there should be a plate for each direction, or clear indication as to how long the insulation run is to the next hatch.



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Instructions for design

For insulation of ducts connected to external air intakes, the outer grille should be located or designed to prevent ingress of rain or snow.

Eg: One solution is to have a downward-facing hood on the external intake. The hood inlet area should be about three times greater than that of the air intake itself.

Assembly of Cleantec® products is carried out under factory conditions.

Air velocity should not exceed 8 m/s.



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