SINTEF Technical Approval

TG 20580

Issued first time: 24.01.2018
Revised: 30.11.2023
Amended:
Valid until 01.02.2028
Provided listed on
www.sintefcertification.no

SINTEF confirms that

Knauf Trestender/Träregel mineral wool – 33, 34 and 35

has been found to be fit for use in Norway and to meet the provisions regarding product documentation given in the regulation relating to the marketing of products for construction works (DOK) and regulations on technical requirements for building works (TEK), with the properties, fields of application and conditions for use as stated in this document

1. Holder of the approval

Knauf Insualtion Ltd
PO Box 10, Stafford Road
St Helens
Merseyside, WA10 3N
United Kingdom
www.knaufinsulation.com

2. Product description

Knauf Trestender/Träregel mineral wool is thermal insulation of glass wool for use in floor, wall, and roof constructions. Knauf mineral wool is produced both as slabs and rolls with formats adapted to traditional constructions with timber frames or steel profiles.

The plates and rolls are produced in thicknesses from 45 mm to 220 mm, with standard plate size is 570 mm x 1200 mm. The products have a density in the range of approx. 18-28 kg/m^3 and resin binder of type Knauf ECOSE™ Technology Binder with a maximum content of 6.7%.

The products covered by the approval are shown in table 1.

Table 1
Knauf Trestender/Träregel mineral wool

Product name	Declared thermal conductivity, λ_D
Trestender / Träregel 33	0,033 W/mK
Trestender / Träregel 34	0,034 W/mK
Trestender / Träregel 35	0,035 W/mK
Trestender rull / Träregel rulle 35	

3. Fields of application

Knauf Trestender/Träregel mineral wool can be used as thermal insulation in moisture-protected wooden constructions and constructions with steel rofiles in floors, walls, ceilings, floor dividers etc. The products can be used in buildings in risk class 1-6 in fire class 1-3.

Fig. 1: *Knauf Insulation Ltd*
Knauf mineral wool, slabs and roll

4. Properties

Product properties of Knauf Trestender/Träregel mineral wool are listed in table 2.

Thermal insulation
Declared thermal conductivity (λ_D) for Knauf Trestender/Träregel mineral wool is given in table 1.

Properties related to fire
Knauf Trestender/Träregel mineral wool have reaction to fire class A1 according to EN 13501-1.

Sound insulation
Installation of mineral wool in cavities improves sound insulation.

Durability
The material's shape, dimensions and heat-technical properties are considered not to change noticeably over time, assuming areas of use and installation as stated in the approval.

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Table 2
Product properties for Knauf mineral wool

Property		Test method EN	Declaration of performance[1)]	Control limit[2)]
Thickness	Trestender / Träregel 33	29466	T4	-3 % or -3 mm[3)] +5% or +5 mm[4)]
	Trestender / Träregel 34		T4	
	Trestender / Träregel 35		T4	
	Trestender rull / Träregel rulle 35		T2	-5 % or -5 mm[3)] +15% or +15 mm[4)]
Property related to fire		13501-1	A1	
Declared thermal conductivity, λ_D	Trestender / Träregel 33	12667	0,033 W/mK	≤ 0,033 W/mK
	Trestender / Träregel 34		0,034 W/mK	≤ 0,034 W/mK
	Trestender / Träregel 35 Trestender rull / Träregel rulle 35		0,035 W/mK	≤ 0,035 W/mK

[1)] Manufacturers Declaration of Performance, DoP
[2)] Control limit shows lowest values, product has to satisfy during internal factory production control and audit testing.
[3)] Depending on which gives the greatest numerical tolerance.
[4)] Depending on which gives the lowest numerical tolerance.

5. Environmental aspects

Substances hazardous to health and environment
The product contains no hazardous substances with priority in quantities that pose any increased risk for human health and environment. Chemicals with priority include CMR, PBT or vPvB substances.

Effect on indoor environment
The product is evaluated according to SINTEF Technical Approval – Health and Environmental Requirements version 09.05.2022. The product is not regarded as emitting any particles, gases or radiation that have a perceptible impact on the indoor climate, or to have any significant impact on health. The product meets the requirements in BREEAM-NOR v6.0, Emissions from building products according to Hea 02 Indoor air quality.

Waste treatment/recycling
The product shall be sorted as residual waste. The product shall be delivered to an authorized waste treatment plant for deposit.

Environmental declaration
An environmental declaration (EPD) has been worked out according to EN 15804 for Trestenderplate 33. For complete documentation see EPD no. S-P-10841 www.environdec.com

An environmental declaration (EPD) has been worked out according to EN 15804 for Trestenderplate 34. For complete documentation see EPD no. S-P-10779 www.environdec.com

An environmental declaration (EPD) has been worked out according to EN 15804 for Trestenderrull 34. For complete documentation see EPD no. S-P-109641 www.environdec.com

An environmental declaration (EPD) has been worked out according to EN 15804 for Trestenderplate 35. For complete documentation see EPD no. S-P-10767 www.environdec.com

An environmental declaration (EPD) has been worked out according to EN 15804 for Trestenderrull 35. For complete documentation see EPD no. S-P-10764 www.environdec.com

6. Special conditions for use and installation

Design considerations
Insulation of buildings reduces heat loss and electricity consumption, while increasing comfort in the building.
Insulation of the roof, floor, external and internal walls can be carried out with slabs or rolls. The mineral wool must be protected against the effects of moisture, and usually be placed in the construction so that the insulation is covered with an airtight layer (wind barrier) on the cold side and a vapor-tight layer (vapour barrier) on the warm side. KNAUF mineral wool should also be used in accordance with the principles shown in SINTEF Building Research Design Guide 523.255 *Bindingsverk av tre*. Varmeisolering *og tetting* and 522.355 *Etasjeskiller med trebjelkelag. Varmeisolering og tetting.*

Installation
The construction must be protected against rain before the mineral wool is installed.

If necessary, the insulation is cut so that it fits tightly against studs, rafters, beams and sills, and without open gaps in the butt joints. When mounting in several layers, the joints must be staggered.

It is recommended that a dust mask, gloves and protective clothing be used when cutting and handling the insulation. Safety glasses are recommended when working overhead. Good ventilation will improve the working environment, as well vacuum cleaners for cleaning.

Transport and storage
Knauf mineral wool is compressed and packaged in plastic.

The packages must be stored off the ground and under a roof to prevent moisture penetration.

7. Factory production control

The products are produced by Knauf Insulation, Stafford Road, St Helens, Merseyside, WA10 3N, United Kingdom.

The holder of the approval is responsible for the factory production control in order to ensure that the products is produced in accordance with the preconditions applying to this approval.

The manufacturing of the products and the manufacturer's system for factory production control (FPC) is subject to continuous surveillance in accordance with the contract regarding SINTEF Technical Approval.

Knauf Insulation Ltd. has a management quality system certified according to EN ISO 9001 and an environmental management system certified according to EN ISO 14001.

8. Basis for the approval

The evaluation of the products is based on reports owned by the holder of the approval.
The evaluation of design and technical solutions are based on recommendations given in SINTEF Building Research Design Guides.

9. Marking

The insulation packets are marked with producer, product description/type and time of production.

The products are CE-marked in accordance with EN 13162.

The approval mark for SINTEF Technical Approval TG 20580 may also be used.

10. Liability

The holder/manufacturer has sole product responsibility according to existing law. Claims resulting from the use of the product cannot be brought against SINTEF beyond the provisions of Norwegian Standard NS 8402

for SINTEF

Susanne Skjervø
Approval Manager