Deutsches Institut für Bautechnik

Public-law institution jointly founded by the federal states and the Federation

European Technical Assessment Body for construction products

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European Technical Assessment ETA-18/0916 of 20 November 2024

English translation prepared by DIBt - Original version in German language

General Part

Technical Assessment Body issuing the European Technical Assessment:	Deutsches Institut für Bautechnik
Trade name of the construction product	"Teko-Flock", "Trendi-Flock", "swissporROC" and "ECO-FLock"
Product family to which the construction product belongs	Thermal insulation made of loose mineral wool
Manufacturer	TEKO GmbH & Co. KG Dr. Albert-Reimann-Straße 20 68526 Ladenburg DEUTSCHLAND
Manufacturing plant	TEKO GmbH & Co. KG Dr. Albert-Reimann-Straße 20 68526 Ladenburg GERMANY
This European Technical Assessment contains	6 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	040729-00-1201
This version replaces	ETA-18/0916 issued on 7 October 2019

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Specific Part

1 Technical description of the product

The European Technical Assessment applies to the thermal insulation products made of loose, mineral wool with the designations:

"Teko-Flock", "Trendi-Flock", "swissporROC" and "ECO-Flock"

The thermal insulation products are manufactured stone wool with a synthetic resin binding agent.

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

2 Specification of the intended use in accordance with the applicable European Assessment Document

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 products "Teko-Flock", "Trendi-Flock", "swissporROC" and "ECO-Flock" can be used for the following intended use:

- Double wall masonry with core insulation (Cavity completely filled)

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 No. 040729-00-1201 "Thermal insulation made of loose mineral wool".

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire "Teko-Flock", "Trendi-Flock", "swissporROC" test acc. to EN ISO 1182:2020 and EN ISO 1716:2018 Organic content test acc. to EN 13820:2003	Class A1 acc. to EN 13501-1:2019 ≤ 4.40 M.-%
Reaction to fire "ECO-Flock" Organic content test acc. to EN 13820:2003	Class A1 acc. to decision 96/603/EC ≤ 1.00 M.-%
Propensity to undergo continous smouldering test acc. to EN 16733:2016	Test passed – The products show no propensity to undergo continous smouldering

3.2 Energy economy and heat retention (BWR 6)

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 "Teko-Flock", "Trendi-Flock", "swissporROC" "ECO-Flock"	Declared value for a moisture content of the insulation material at 23 °C and 50 % relative humidity: [1] $\lambda_{D(23,50)}$ = 0.037 W/(m ·K) $\lambda_{D(23,50)}$ = 0.038 W/(m ·K)
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 "ECO-Flock"	Wp ≤ 1.0 kg/m² (WS acc. to EN 14064-1)
Long term water absorption	No performance assessed
Bulk density in case of use as core insulation "Teko-Flock", "Trendi-Flock", "swissporROC" "ECO-Flock"	 80 kg/m³ to 100 kg/m³ 100 kg/m³ to 120 kg/m³
Water repellency water absorption after 4 h water absorption after 28 d	 1.0 kg/m² 3.0 kg/m²
Water vapour diffusion resistance coefficient	μ = 1
Settlement	
Settling under impact excitation in the case of free placing (e. g. on the ceiling or between beams)	No performance assessed
Settling under vibration in wall cavity and between beams	SC 0 acc. to EN 15101-1:2013 (≤ 1 %) at a minimum bulk density of 80 kg/m³ and a maximum thickness of 240 mm
Settling under defined climatic conditions	No performance assessed
Airflow resistance [2]	No performance assessed

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 for "Teko-Flock", "Trendi-Flock" und "swissporROC" is: 1

The system to be applied for "ECO-Flock" is: 4

[1] The declared value is representative for at least 90 % of the production with a confidence level of 90 % and applies to the above-named density range.

[2] Also relevant in terms of BWR 5

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 AVCP system are laid down in the control plan deposited with Deutsches Institut für Bautechnik.

Issued in Berlin 20 November 2024 by Deutschen Institut für Bautechnik

Frank Iffländer
Head of Section

beglaubigt:
Meyer

"Teko-Flock", "Trendi-Flock", "swissporROC" and "ECO-FLock"

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/m³]
Double wall masonry with core insulation (Cavity completely filled) "Teko-Flock", "Trendi-Flock", "swissporROC"	80 – 100
Double wall masonry with core insulation (Cavity completely filled) "ECO-Flock"	100 – 120

- 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
Double wall masonry with core insulation (Cavity completely filled)	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 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.
- It is made sure by appropriate measures (e. g. control drillings) that the cavity is completely filled with the thermal insulation product.
- The thermal insulation products are only processed by companies stated in a list of the manufacturer which have adequate experience in installing the material. Concerning this matter the manufacturer has trained these companies.
- The executing company issue a certificate which contains the following information with reference to this European Technical Assessment for each application place:
  - Thermal insulation product made of loose mineral wool
  - trade names
  - executing company
  - building project and building component
  - date of installation
  - installation thickness