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European Technical Assessment

ETA-22/0454 of 25/07/2022

General Part

Technical Assessment Body issuing the European Technical Assessment

Statybos produkcijos sertifikavimo centras (SPSC)

Trade name of the construction product

Warmotech 550

Product family to which the construction product belongs

Thermal insulation board made of pressed rigid polyurethane foam

Manufacturer

UAB "Anderus", R.Kalantos g. 49, LT-52303
Kaunas, Lithuania

Manufacturing plant

UAB "Anderus", R.Kalantos g. 49, LT-52303
Kaunas, Lithuania

This European Technical Assessment contains

5 pages 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

European assessment document
EAD 040419-00-1201

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Specific part

1. Technical description of the product

1.1 Characterisation of the construction product

This European Technical Assessment applies to the thermal insulation boards made of pressed rigid polyurethane foam with smooth, rigid surfaces and without additional coating, designated as "Warmotech 550", hereinafter referred to as thermal insulation board.

The polyurethane (PU) rigid foam is made of ground PU residual materials (milling and cutting waste) generated during production and free from impurities. Residual materials resulting from the production of PU foam blocks and strips laminated with a mineral fleece or aluminium are used for the thermal insulation boards.

The European Technical Assessment has been issued for the products on the basis of agreed data / information, deposited with VĮ Statybos produkcijos sertifikavimo centras (SPSC), which identifies the product that has been assessed. The European Technical Assessment applies only to products corresponding to this agreed data / information.

2. Specifications of the intended use in accordance with the applicable EAD

The polyurethane (PU) thermal insulation boards are intended to be used as thermal insulation in buildings and construction applications, including floors, walls and roofs, for construction elements with no contact to water and soil.

The performance according to section 3 only applies if the thermal insulation board is installed according to the manufacture's installation instructions and if they are protected from precipitation, wetting or weathering in built-in state and during transport, storage and installation.

The verifications and assessment methods on which this European Technical Assessment is based lead to the assumption of a working life of the thermal insulation boards of at least 25 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as a means for choosing the right products in relation to the expected economically reasonable working life of the works.

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

For sampling, conditioning and testing the provisions of the EAD 040419-00-1201 "Thermal insulation board made of pressed rigid polyurethane foam" apply.

3.1 Safety in case of fire (BWR 2)

Essential characteristic	Performance
Reaction to fire test according to EN ISO 11925-2:2020 and EN 13823:2020 Warmotech 550 (for $10 \text{ mm} \leq d \leq 70 \text{ mm}$)	acc. to EN 13501-1:2019 Class D-s3, d0 ¹⁾
¹⁾ The given classification is valid on substrates class A1 or A2-s1, d0 acc. to EN 13501-1, density $\geq 450 \text{ kg/m}^3$ and thickness $\geq 12,5 \text{ mm}$, without air gap; product may be mounted with vertical and horizontal connections	

3.2 Safety and accessibility in use (BWR 4)

Essential characteristic	Performance
Bending strength test acc. to EN 12089:2013 Warmotech 550 (for $10 \text{ mm} \leq d \leq 70 \text{ mm}$)	$\geq 4700 \text{ kPa}$
Shear strength	No performance assessed

3.3 Energy economy and heat retention (BWR 6)

Essential characteristic	Performance
Thermal conductivity test acc. to EN 12667:2001 Warmotech 550 (for $10 \text{ mm} \leq d \leq 70 \text{ mm}$) Conversion of humidity acc. to EN ISO 10456:2007 + AC:2009: - mass-related moisture content at 23 °C/50% rel. humidity - mass-related moisture content at 23 °C/80% rel. humidity mass-related moisture conversion coefficient - mass-related moisture conversion coefficient - moisture conversion factor (23 °C/50% rel. humidity to 23 °C/80% rel. humidity)	Declared value of the thermal conductivity ²⁾ $\lambda_D (23/50) = 0,088 \text{ W/(m}\cdot\text{K)}$ $u_{23/50} = 0,014$ $u_{23/80} = 0,047$ $f_u = 1,31$ $F_m (23/50-23/80) = 1,04$
Compressive strength, test acc. to EN 826:2013 - Warmotech 550 (for $10 \text{ mm} \leq d \leq 60 \text{ mm}$) - Warmotech 550 (for $60 \text{ mm} < d \leq 70 \text{ mm}$)	$\geq 7100 \text{ kPa}$ $\geq 6800 \text{ kPa}$
Water absorption test acc. to EN 1609:2013 (by short term, partial immersion)	$W_p \leq 0.4 \text{ kg/m}^2$
Hygroscopic sorption properties	No performance assessed
Water vapour diffusion resistance resistance	No performance assessed
Dimensional stability under specified temperature and humidity test acc. to EN 1604:2013	$D_S(70,90) \leq 1 \%$ $D_S(-20,-) \leq 1 \%$
Tensile strength perpendicular to faces	No performance assessed
Density test acc. to EN 1602:2013	$550 \text{ kg/m}^3 \pm 50 \text{ kg/m}^3$
Nominal thickness test acc. to EN 823:2013 Deviation	10 mm to 70 mm $\pm 0.5 \text{ mm}$
Nominal length test acc. to EN 822:2013 Deviation	2750 mm $\pm 5 \text{ mm}$
Nominal width test acc. to EN 822:2013 Deviation	1150 mm $\pm 5 \text{ mm}$
Squareness test acc. to EN 824:2013 Deviation	$S_b \leq 1 \text{ mm/m}$
Flatness, test acc. to EN 825:2013 Deviation	$S_{\max} \leq 4 \text{ mm}$
Deformation under specified compressive load and temperature conditions	No performance assessed
Compressive creep	No performance assessed
Flatness after one-sided wetting	No performance assessed
Water absorption (by long term immersion)	No performance assessed
²⁾ Declared value of the thermal conductivity for a moisture content of the insulation material at 23 °C and 50 % relative humidity, representative for at least 90 % of the production with a confidence level of 90 %.	

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 040419-00-1201 "Thermal insulation board made of pressed rigid polyurethane foam" the applicable European legal act is: 1999/91/EC.

The system to be applied is: 3.

In addition, with regard to reaction to fire the applicable European legal act is: 2001/596/EC for products covered by this European Assessment Document.

The system to be applied is: 3.

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 prepared according to EAD and deposited at the VĮ Statybos produkcijos sertifikavimo centras.

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By Statybos produkcijos sertifikavimo centras

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