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Designated according to Article 29 of Regulation (EU) No 305/2011

Member of EOTA
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European Technical Assessment ETA 13/1031 of 4/5/2016

I General Part

Technical Assessment Body issuing the ETA	**VTT Expert Services Ltd**
Trade name of the construction product	**Ewona polyester insulation**
Product family to which the construction product belongs	Thermal and acoustic insulation for building
Manufacturer	**Ewona Finland Oy** P.O. Box 140 FI-38701 Kankaanpää
Manufacturing plant	**Ewona Finland Oy** Ewonankatu 5 FI-38700 Kankaanpää
This European Technical Assessment contains	4 pages
This European Technical Assessment is issued in accordance with regulation (EU) No 305/2011, on the basis of	European Assessment Document EAD 040288-00-1201, edition March 2016
This ETA replaces	ETA 13/1031 issued on 28/6/2013

II SPECIFIC PART OF THE EUROPEAN TECHNICAL ASSESMENT

1 Technical description of the product

Ewona polyester fibre thermal and acoustic insulations consist of polyester fibres of which part is made of recycled polyester. Insulation is delivered as boards. One side of the insulation board is normally coated with non-woven polypropylene (60 g/m^2) or polyester (70 g/m^2) facing.

Standard dimensions of the boards are 1180 mm x 560 mm. Special dimensions can be delivered upon request. Thickness of the insulation is 10 – 50 mm. Length, width and thickness tolerance of the boards is ± 5 mm. The density of the insulation is 20 – 36 kg/m^3.

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

Intended uses

The product is intended to be used as thermal and acoustic insulation in walls, partitions, floors, intermediate floors and ceilings. Insulation can also be used as thermal and acoustic insulation of ventilation ducts.

The insulation is used in constructions where it is not exposed to wetting, weathering, heavy moisture transport, condensation or compression loads.

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advise his clients on the transport, storage, maintenance, replacement and repair of the product as he considers necessary.

It is assumed that the product will be installed according to the manufacturer's instructions.

Working life and durability

The provisions made in this ETA are based on an assumed working life of the thermal insulation of 50 years. The indications given on the working life cannot be interpreted as a guarantee given by the producer or the assessment body. They should only be regarded as a means for the specifiers to choose the appropriate criteria for Ewona insulation in relation to the expected, economically reasonable working life of the works.

Execution of construction works

The completed building (the works) shall comply with the building regulations (regulations on the works) applicable in the Member States in which the building is to be constructed. The procedures foreseen in the Member State for demonstrating compliance with the building regulations shall also be followed by the entity held responsible for this act. An ETA for Ewona thermal and acoustic insulations does not concern this process in any way.

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

Table 1. Characteristics of Ewona polyester thermal and acoustic insulation

Basic requirement Essential characteristics	Assessment of characteristic	
BWR 1. Mechanical resistance and stability		
Corrosion developing capacity on metal constructions	No perforations on zinc or copper sheets	
BWR 2. Safety in case of fire		
Reaction to fire - Mechanically fixed on non- combustible substrate or free standing with ≥ 80 mm air gap - Coated with polypropylene (60 g/m²) or polyester non-woven (70 g/m²) facing - Horizontal and vertical joints	Thickness and density	
	50 mm, 20 – 24 kg/m^3	Other thicknesses and densities
	B-s1, d0	No performance assessed
BWR 3. Hygiene, health and the environment		
Content, emissions and/or release of dangerous substances	No performance assessed	
Water absorption	Thickness and density	
	50 mm, 20 kg/m^3	Other thicknesses and densities
	0,61 kg/m^2	No performance assessed
Water vapour permeability - water vapour permeance, W - water vapour diffusion resistance factor, μ	 1,40·10^{-9} kg/m^{2}sPa 2,8	
Air permeability	365·10^{-6} m^3/msPa	
Susceptibility to mould growth	0	
BWR 5. Protection against noise		
Sound absorption	See Table 2	
BWR 6. Energy economy and heat retention		
Thermal conductivity, $\lambda_{D(23,50)}$	0,041 W/mK	
Dimensional stability (length/width/thickness)	-0,1 % / 0 % / 0 %	
Tensile strength parallel to faces	17 kPa	

Table 2. Sound absorption coefficient α_p of Ewona polyester thermal and acoustic insulation

Thickness [mm] / density [kg/m^3] / Frequency [Hz]	15/36	30/20	30/30	30/36	50/25	50/36
125	0,1	0,15	0,2	0,15	0,25	0,25
250	0,2	0,3	0,3	0,35	0,5	0,55
500	0,4	0,55	0,55	0,65	0,8	0,8
1000	0,5	0,65	0,65	0,75	0,8	0,85
2000	0,55	0,7	0,7	0,8	0,85	0,85
4000	0,65	0,75	0,7	0,8	0,85	0,9
Weighted sound absorption coefficient, α_w	0,45 (H)	0,55 (H)	0,55 (H)	0,65 (H)	0,8	0,8

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

For the products covered by this ETA the applicable European legal act is: Decision 99/91/EC as amended by 2001/596/EC.

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 deposited at deposited at VTT Expert Services Ltd.

Issued in Espoo on May 4, 2016 by VTT Expert Services Ltd

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