

DECLARATION OF PERFORMANCES - DOP Nº 104 – LF 110+

- 1. Unique identification code of the product-type:**
LF 110+
- 2. Type, batch or serial number or any other element allowing identification of the construction product, as required pursuant to Article 11(4):**
LF 110+ (see product label).
- 3. Intended use or uses of the construction product, in accordance with the applicable harmonised technical specification, as foreseen by the manufacturer:**
Stone mineral wool (MW) insulation product, as a slab without facing, for diverse applications in civil construction.
- 4. Name, registered trade name or registered trade mark and contact address of the manufacturer as required pursuant to Article 11(5):**
TERMOLAN – ISOLAMENTOS TERMO-ACÚSTICOS, S.A.
Av. de Poldrões, nº10 – Apartado 11
4795-006 Vila das Aves – Portugal
- 5. Where applicable, name and contact address of the authorised representative whose mandate covers the tasks specified in Article 12(2):**
Not applicable.
- 6. System or systems of assessment and verification of constancy of performance of the construction product as set out in Annex V:**
AVCP system 1 for reaction to fire.
AVCP system 3 for characteristics of thermal resistance, water permeability, thickness tolerance, compressive strength, tensile strength and point load.
- 7. In case of the declaration of performance concerning a construction product covered by a harmonised standard:**
The ACERMI (laboratory of the notified body nº: 1163) determined the product-type on the basis of the initial type testing (ITT), including sampling, an initial inspection of the manufacturing plant and factory production control, monitoring, assessment and approval of factory production control, under systems 1 and 3, and issued the corresponding conformity certificate.
- 8. In case of the declaration of performance concerning a construction product for which a European Technical Assessment has been issued:**
Not applicable.

9. Declared performance:

Harmonised technical specification EN 13162:2012+A1:2015

Essential characteristics		Performance
Reaction to fire - Euroclass characteristics	Reaction to fire	A1
Release of dangerous substances to the indoor environment	Release of dangerous substances	a)
Acoustic absorption index	Acoustic absorption	NPD
Impact noise transmission index (for floors)	Dynamic stiffness	NPD
	Thickness, d_L	NPD
	Compressibility	NPD
	Air flow resistivity	NPD
Direct airborne sound insulation index	Air flow resistivity	NPD
Continuous glowing combustion	Continuous glowing combustion	b)
Thermal resistance	Thermal resistance	c)
	Thermal conductivity (W/m.K)	0,035
	Thickness	T5
Water permeability	Water absorption (short term)	WS
Water vapour permeability	Water vapour transmission	NPD
Compressive strength	Compressive stress or compressive strength	CS(10)30
	Point load	PL(5)450 (100mm – 240mm)
Durability of reaction to fire against heat, weathering, ageing/degradation	Durability characteristics d)	e)
Durability of thermal resistance against heat, weathering, ageing/degradation	Thermal resistance and thermal conductivity	f)
	Durability characteristics	g)
Tensile/Flexural strength	Tensile strength perpendicular to faces h)	TR7,5
Durability of compressive strength against ageing/degradation	Compressive creep	NPD

- a) Thermal insulation products should not surpass the maximum admissible levels foreseen in the European and National specifications of dangerous substances. Awaiting full definition of the mentioned developing specifications;
- b) Awaiting full definition of developing European technical specifications;
- c) Declared thermal resistance:

Thickness (mm)	60	65	70	75	80	85	90	95	100	105	110
Thermal resistance (m ² .K/W)	1,70	1,85	2,00	2,10	2,25	2,40	2,55	2,70	2,85	3,00	3,10
Thickness (mm)	115	120	125	130	135	140	145	150	155	160	165
Thermal resistance (m ² .K/W)	3,25	3,40	3,55	3,70	3,85	4,00	4,10	4,25	4,40	4,55	4,70
Thickness (mm)	170	175	180	185	190	195	200	205	210	215	220
Thermal resistance (m ² .K/W)	4,85	5,00	5,10	5,25	5,40	5,55	5,70	5,85	6,00	6,10	6,25
Thickness (mm)	225	230	235	240	-	-	-	-	-	-	-
Thermal resistance (m ² .K/W)	6,40	6,55	6,70	6,85	-	-	-	-	-	-	-

- d)
- e) No change in reaction to fire properties for mineral wool products.
- f) The fire performance of mineral wool does not deteriorate with time. The Euroclass classification of the product is related to the organic content, which cannot increase with time.



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In accordance with Regulation (EU) 305/2011 of March 9th

- g) Thermal conductivity of mineral wool products does not change with time, experience has shown the fibre structure to be stable and the porosity contains no other gases than atmospheric air.
- h) For dimensional stability thickness only.
- i) This characteristic also covers handling and installation.

10. The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 9.

This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Signed for and on behalf of the manufacturer and electronically by:

General Manager

Vila das Aves, November 13, 2023.

TERMOLAN
ISOLAMENTOS TERMO-ACÚSTICOS, S.A.