

LF 90

DOP 18

LF 110

DOP 19

MW - EN 13162 - T4 - WS

**RI
SE**
Research Institutes
of Sweden**TERMOLAN**
ISOLAMENTOS TERMO-ACÚSTICOS, S.A.**DEFINITION:**

Rigid slabs of uniform thickness made of stone wool fibres bonded with synthetic binder, without facing.

APPLICATIONS:

Slabs specially designed for floor applications as thermal and acoustical insulation and reduction of impact noise.

BENEFITS:

- Easy and quick application;
- Compatible with heating floors solutions;
- Very good thermal insulation;
- Excellent acoustical insulation and impact noise reduction;
- Very good mechanical performance;
- High insulation performances;
- Fire safety;
- Excellent water behaviour;
- Inert product respecting the environment (CFC and HCFC free).

PRESENTATION:

Slabs packed in packages. Options:

Product	THICKNESS (mm) [EN 823]	DIMENSIONS (mm) [EN 822]
LF 90	20 to 50	1200×600
LF 110	20 to 50	1200×1000

Tolerances:

THICKNESS (CLASS T4): -3 % OR -3 mm ^{a)} TO +5 % OR +5 mm ^{b)}

LENGTH: ±2%

WIDTH: ±1.5%

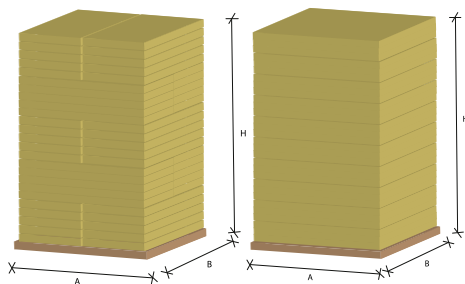
^{a)} Is valid the greatest numerical tolerance

^{b)} Is valid the lowest numerical tolerance

PACKAGING:

Packages packed in retractile plastic.

Geometry (A×B×H):



PHYSICAL PROPERTIES OF MATERIALS

NOMINAL DENSITY

LF 90**90 kg/m³****LF 110****110 kg/m³**

THERMAL RESISTANCE, R_D

EN 12667
EN 12939

THICKNESS (mm)	20	30	40	50
R_D (m ² .K/W)	0.60	0.90	1.20	1.50

THERMAL CONDUCTIVITY, λ_D

EN 12667
EN 12939

Declared value: $\lambda_D = 0.033 \text{ W/m.K}$

FIRE REACTION

EN 13501-1
ISO 1182

Incombustible - **EUROCLASS A1**

WATER ABSORPTION

NP EN 1609

$WS \leq 1.00 \text{ kg/m}^2$

WATER VAPOUR DIFFUSION FACTOR

EN 12086

$\mu = 1.30$

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PHYSICAL PROPERTIES OF MATERIALS

ACOUSTICAL ABSORPTION COEFFICIENT, α_s

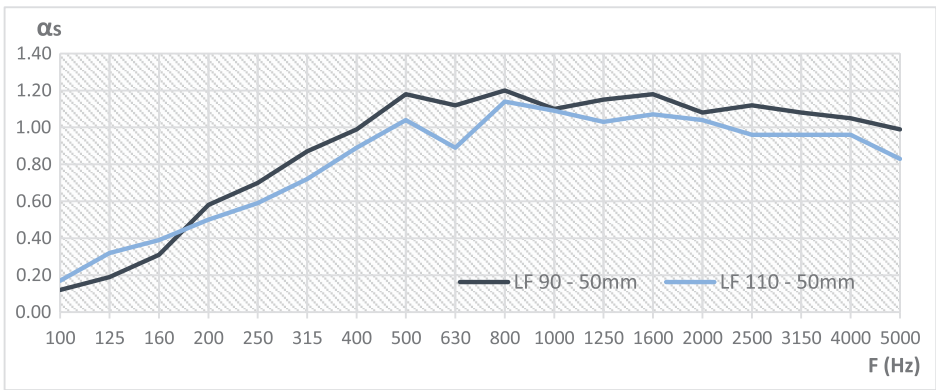
EN ISO 354

LF 90

THICKNESS 50 mm	F (Hz)	100	125	160	200	250	315	400	500	630
	α_s	0.12	0.19	0.31	0.58	0.70	0.87	0.99	1.18	1.12
	F (Hz)	800	1000	1250	1600	2000	2500	3150	4000	5000
	α_s	1.20	1.10	1.15	1.18	1.08	1.12	1.08	1.05	0.99

LF 110

THICKNESS 50 mm	F (Hz)	100	125	160	200	250	315	400	500	630
	α_s	0.17	0.32	0.39	0.50	0.59	0.72	0.89	1.04	0.89
	F (Hz)	800	1000	1250	1600	2000	2500	3150	4000	5000
	α_s	1.14	1.09	1.03	1.07	1.04	0.96	0.96	0.96	0.83



EQUIVALENT ABSORPTION COEFFICIENT, α_w

EN ISO 11654

LF 90 $\alpha_w = 1.00$ CLASS A

LF 110 $\alpha_w = 0.85$ (MH) CLASS B

OTHER PROPERTIES

SQUARENESS [NP EN 824]	Deviation lenght / width < 5mm/m
FLATNESS [NP EN 825]	Deviation ≤ 6 mm
DIMENSIONAL STABILITY, $\Delta\epsilon$ [NP EN 1604]	23 °C / 90% HR: the relative deviaton (length and width) do not exceed 0.0%

ACOUSTICAL INSULATION: IMPACT NOISE TRANSMISSION

- To prevent the spread of these impact noises and the receipt by air should be done an elastic cut between the soil and the structural elements;
- The best solution is to make a floating floor on stone wool slabs;
- It is essential to be avoided the floating floor contact with the structural support elements.

