

Pi 120**Pi 120 AL**

DOP 45

DOP 46

MW - EN 14303

**RI
SE**Research Institutes
of Sweden**TERMOLAN**

ISOLAMENTOS TERMO-ACÚSTICOS, S.A.



Protection against fire



Thermal insulation



Acoustical insulation

DEFINITION:

Rigid slabs of uniform thickness made of stone wool fibres bonded with synthetic binder, without facing - Pi 120 - or aluminium faced - Pi 120 AL - (under prior consultation).

APPLICATIONS:

Multiple as thermal acoustical insulation in maritime and industrial applications. Ideal product for the insulation of hot flat surfaces and for the fire protection for structural steel work and also in ship decks and bulkheads.

BENEFITS:

- Easy and quick application;
- High insulation performances;
- Very good mechanical performance;
- Fire protection solutions;
- Fire safety;
- Chemically neutral and non corrosive;
- Excellent water behaviour;
- Inert product respecting the environment (CFC and HCFC free).

PRESENTATION:

Slabs. Options of presentation:

THICKNESS (mm) [NP EN 823]	DIMENSIONS (mm) [NP EN 822]
30 to 100	1000×600

Tolerances:

THICKNESS (CLASS T5): -1 % OR -1 mm ^{a)} TO +3 mm

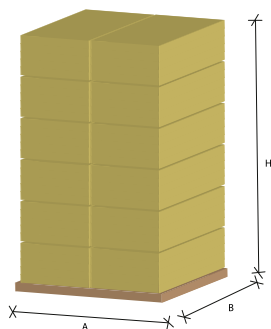
LENGTH: ±2%

WIDTH: ±1.5%

^{a)} Is valid the greatest numerical tolerance

PACKAGING:

Packages packed in retractile plastic.
Geometry (A×B×H):



PHYSICAL PROPERTIES OF MATERIALS

NOMINAL DENSITY

EN 1602
ASTM C167**120 kg/m³**

MAXIMUM SERVICE TEMPERATURE

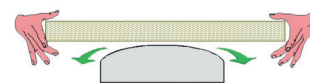
EN 14706
ASTM C447**ST(+) = 680 °C**

NOTE: The service temperature of the aluminum facing must not exceed 90 °C.

SPECIFIC HEAT FACTOR

c = 0.84 kJ/kg.°C

MAXIMUM BENDING RADIUS



THICKNESS (mm)	30	40	50	60	70	80	100
RADIUS (mm)	400	500	700	1000	1200	1500	2100

THERMAL CONDUCTIVITY, λ

EN 12667
ASTM C335

MEAN TEMPERATURE (°C)	10	50	100	150	200	250	300	350	400
λ (W/m.K)	0.038	0.039	0.044	0.051	0.059	0.069	0.082	0.093	0.109
λ (kcal/h.m.K)	0.033	0.034	0.038	0.044	0.051	0.059	0.071	0.080	0.094

FIRE REACTION

EN 13501-1
ASTM E84

Incombustible - **EUROCLASS A1**

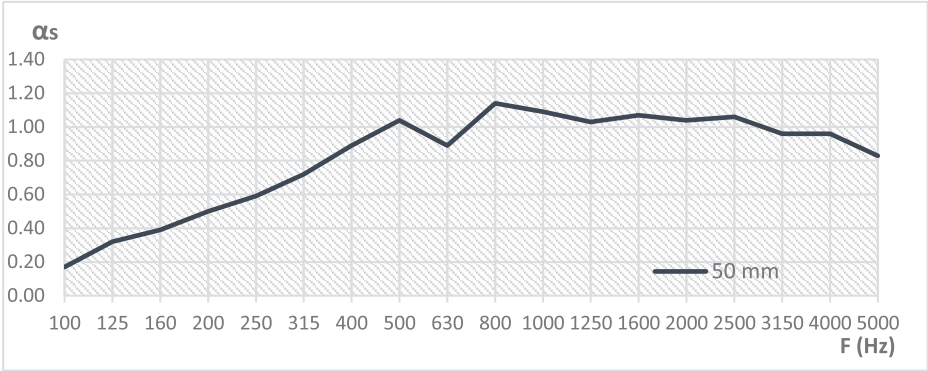


PHYSICAL PROPERTIES OF MATERIALS

ACOUSTICAL ABSORPTION COEFFICIENT, α_s

EN ISO 354

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	1.06	0.96	0.96	0.83



EQUIVALENT ABSORPTION COEFFICIENT, α_w

EN ISO 11654

$\alpha_w = 0.85$ (MH) CLASS B

OTHER PROPERTIES

SQUARENESS [NP EN 824]	Deviation length / width < 5mm/m
FLATNESS [NP EN 825]	Deviation ≤ 6 mm
DIMENSIONAL STABILITY, $\Delta\epsilon$ [NP EN 1604]	23 °C / 90% HR: the relative deviation (length and width) does not exceed 0.0%
WATER ABSORPTION [NP EN 1609]	WS ≤ 1.00 kg/m ²
WATER VAPOUR PERMEABILITY [EN ISO 12572]	0.05 g/m ² /24h (value depending of the aluminium facing)
WATER VAPOUR DIFFUSION FACTOR [EN 14303]	$\mu = 1.00$
AIR FLOW RESISTIVITY [EN 29053]	AF > 70 kPa.s/m ²

