

Pi 100 Pi 100 AL

DOP 43

DOP 44

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 100 - or aluminium faced - Pi 100 AL - (under prior consultation).

APPLICATIONS:

Multiple as thermal acoustical insulation in industrial applications. Suitable at both high and low service temperature, in boilers, ducting, ovens, vessels and other industrial equipment.

BENEFITS:

- Easy and quick application;
- High insulation performances;
- Very good mechanical performance;
- Elevado comportamento mecânico;
- 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	1000x600

Tolerances:

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

LENGTH: ±2%

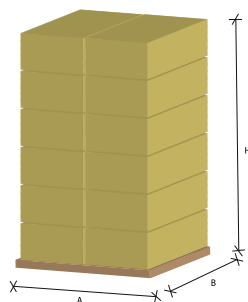
WIDTH: ±1.5%

^{a)} Is valid the greatest numerical tolerance

^{b)} Is valid the lowest numerical tolerance

PACKAGING:

Packages packed in retractile plastic.
Geometry (AxBxH):



PHYSICAL PROPERTIES OF MATERIALS

NOMINAL DENSITY

EN 1602
ASTM C167

100 kg/m³

MAXIMUM SERVICE TEMPERATURE

EN 14706
ASTM C447

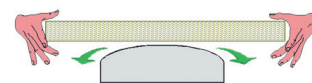
ST(+) = 500 °C

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

CONDUCTIVIDAD TÉRMICA, λ

EN 12667
ASTM C335

MEAN TEMPERATURE (°C)	10	50	100	150	200	250	300	350	400
λ (W/m.K)	0.033	0.039	0.045	0.054	0.064	0.074	0.088	0.101	0.119
λ (kcal/h.m.K)	0.028	0.034	0.039	0.046	0.055	0.064	0.076	0.087	0.102

FIRE REACTION

EN 13501-1
ASTM E84

Incombustible - **EUROCLASS A1**

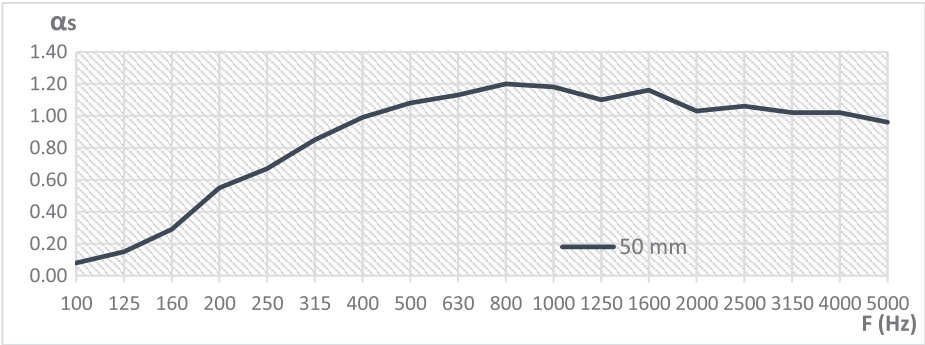


PHYSICAL PROPERTIES OF MATERIALS

ACOUSTICAL ABSORPTION COEFFICIENT, α_s

EN ISO 354

THICKNESS 50 mm	F (Hz)	100	125	160	200	250	315	400	500	630
	α_s	0.10	0.38	0.47	0.63	0.54	0.64	0.87	0.98	0.85
	F (Hz)	800	1000	1250	1600	2000	2500	3150	4000	5000
	α_s	1.19	1.09	1.08	1.14	1.07	1.09	1.08	0.95	0.81



EQUIVALENT ABSORPTION COEFFICIENT, α_w

EN ISO 11654

$\alpha_w = 0.90$ (MH) CLASS A

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 > 60 kPa.s/m ²

