

Pi 40

DOP 37

Pi 40 AL

DOP 38

MW - EN 14303

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

ISOLAMENTOS TERMO-ACÚSTICOS, S.A.



Protection against fire



Thermal insulation



Acoustical insulation

DEFINITION:

Semi rigid slabs of uniform thickness made of stone wool fibres bonded with synthetic binder, without facing - Pi 40 - or aluminium faced - Pi 40 AL.

APPLICATIONS:

Multipurpose as thermal acoustical insulation in industrial applications, ducts, tanks and large vessels.

BENEFITS:

- Easy and quick application;
- Easy adaptation to structural elements;
- High insulation performances;
- Good mechanical performance;
- Fire safety;
- Chemically neutral and non corrosive;
- Excellent water behaviour;
- Inert product respecting the environment (CFC and HCFC free).

PRESENTATION:

Slabs packed in packages. Options:

Product	THICKNESS (mm) [NP EN 823]	DIMENSIONS (mm) [NP EN 822]
Pi 40	30 to 100	1000×600
Pi 40 AL	50 to 100	

Tolerances:

THICKNESS (CLASS T3): -3 % OR -3 mm ^{a)} TO +10 % OR +10 mm ^{b)}

LENGTH: ±2%

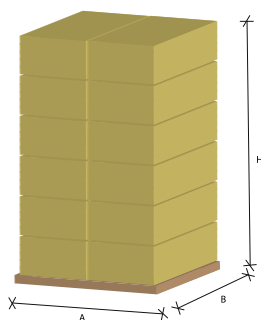
WIDTH: ±1.5%

^{a)} Is valid the greatest numerical tolerance

^{b)} Is valid the lowest numerical tolerance

PACKAGING:

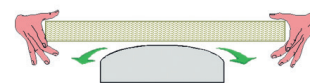
Packages packed in retractile plastic.
Geometry (A×B×H):



PHYSICAL PROPERTIES OF MATERIALS

NOMINAL DENSITYEN 1602
ASTM C167**40 kg/m³****MAXIMUM SERVICE TEMPERATURE**EN 14706
ASTM C447**ST(+) = 250 °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	900	1100	1300	1800

THERMAL CONDUCTIVITY, λEN 12667
ASTM C335

MEAN TEMPERATURE (°C)	10	50	100	150	200	250
λ (W/m.K)	0.035	0.043	0.053	0.068	0.085	0.106
λ (kcal/h.m.K)	0.030	0.037	0.046	0.058	0.073	0.091

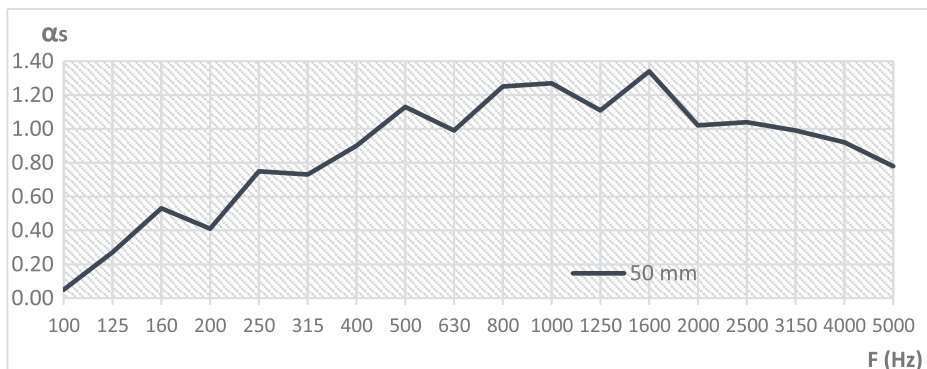
FIRE REACTIONEN 13501-1
ASTM E84**Incombustible - EUROCLASS A1**

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	0.05	0.27	0.53	0.41	0.75	0.73	0.90	1.13	0.99
	F (Hz)	800	1000	1250	1600	2000	2500	3150	4000	5000
	α_s	1.25	1.27	1.11	1.34	1.02	1.04	0.99	0.92	0.78



EQUIVALENT ABSORPTION COEFFICIENT, α_w

EN ISO 11654

$\alpha_w = 0.95$ (MH) CLASS A

OTHER PROPERTIES

SQUARENESS [NP EN 824]	Deviation length / width < 5mm/m
FLATNESS [NP EN 825]	Deviation $\leq$ 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 $\leq$ 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 > 10 kPa.s/m ² (value for unfaced product)

