

Thermal insulation sheets for heated floors

TENAPORS TERMO

GENERAL DESCRIPTION

Foamed polystyrene sheets TENAPORS TERMO are an ecofriendly, inexpensive and efficient insulation material for quick laying of water-heated floors. The sheets are made of a porous material with closed pores and flame retardant additives (substances that suppress combustion). They are resistant to weak acidic, alkaline and saline solutions but non-resistant to aromatic and halogen containing solvents, esters, ketones, oils or lubricants (e.g. toluene, solvent, ethyl acetate, etilacetāts, acetone, etc.). One side of the sheets has cylindrical grooves for easy and fast arrangement and fastening of heating pipes. The sheets are intended for heating pipes in \emptyset 16–18 mm. These sheets may be continuously used as a thermal insulation material at ambient temperatures of up to $+ 80^{\circ}$ C.

ASSEMBLY

Arrangement of water-heated floors using TENAPORS TERMO sheets:

- Preparing the base of the floor surface (clean the base from any dirt)
- the floor base must be smooth and even
- Laying of an additional layer of thermal insulation (determined during the design process) TENAPORS EPS shall be used as an additional layer of thermal insulation
- Arranging TENAPORS TERMO sheets:
 - Insert a distortion tape along the entire perimeter of the room
 - Correctly arrange heating pipes (determined during the design process)
 - Cast fibro concrete on top of the arranged piping
 - The thickness of the concrete layer above the heating pipes shall be 35–40 mm
 - Arrange the main floor
 - The main floor may be laid only after the concrete has hardened completely (approximately after a month)





MAIN PROPERTIES

- Easy and quick assembly of the sheets
- Low thermal conductivity coefficient
- High mechanical load resistance
- The half-lap joints ensure homogeneous joining of the sheets

TECHNICAL DATA

Parameters	TERMO
Compressive stress at 10% deformation (kPa)	≥150
Flexural strength (kPa)	≥200
Sustained water absorption when completely immersed in water	≤ 3.5 %
Reaction to fire, Euroclass – TENAPORS TERMO	E
Thermal conductivity coefficient at 10°C, $\lambda_{\rm D}$ (W/mK)	0.034
Sheet dimensions (mm)	1200×600
Sheet thickness (thermal insulation/ cylindrical groove) (mm)	50 (30/20)







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SHAPE AND BASIC DIMENSIONS



USAGE

Water-heated floors may be installed only in buildings or flats with their own boiler. The sheets are used as a thermal insulation material for water-heated floors. The water-heated floors with TENAPORS TERMO sheets may be assembled on the ground, concrete decks, and also on concrete base floors. If necessary, TENAPORS EPS should be used as an additional thermal insulation material.

EXAMPLES OF USAGE OF TENAPORS TERMO





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