TILEFOAM

Thermal Insulating Tiles For Roofs &Walls

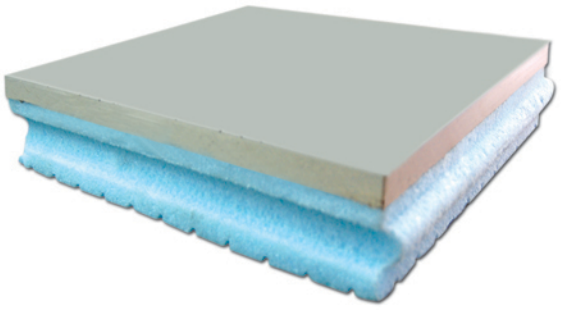
Description

TILEFOAM is an insulating tile made of high strength polymeric concrete layer bonded mechanically and chemically to extruded polystyrene foam layer .

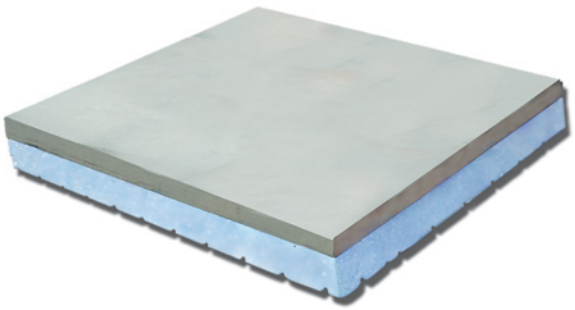
The top layer of polymeric concrete has high compressive, bending and abrasion strength and low water absorption.

The layer of foam which provides the insulation is characterized by its rigid and homogenous closed-cell structure, its waterproofness and its extraordinary high thermal insulating properties, which are maintained even under very humid/ wet conditions.

Suitable for internal and external use, TILEFOAM is an ideal covering where its finish gives an attractive appearance.



Tongue and Groove type



Straight Cut type

Advantages

-High thermal efficiency (Coefficient of thermal conductivity of the foam layer (0.032W/mK) (after ageing).

-Lower total thickness and reduction of permanent loads on roofs from 200 to 40 kg/m^2.

-Elimination of external vapour barrier.

-Reduced maintenance cost and easy lifting for inspection.

-Can be laid on any type of waterproofing material.

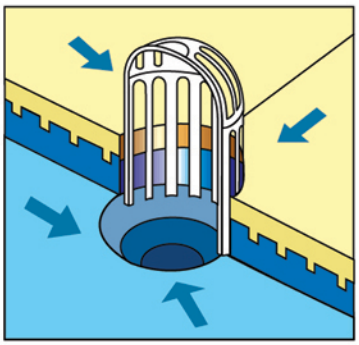
-Single-step fast application with consequent cost saving.

-Fast drainage of rain without the need for sloping roof.

-Several colours with attractive patterns.

-CFC and HCFC free.

-Eliminates the need for plastering when used for wall cladding.



Installing water drainage pipes

Technical Properties

Dimensions	30 x 30 cm (other dimensions upon request)
Foam Layer Material	Extruded polystyrene foam
Thickness of Foam Layer	2.0,3.0,4.0,5.0 cm
Coefficient of thermal conductivity of Foam Layer	0.032 W/ mK
Water absorption by submersion	Negligible
Fire classification (DIN 4102)	B 1 (self distinguishing)
Protective Layer	polymer cement concrete
Thickness of Top Layer	1 cm (and more at request)
Compressive strength (ASTM C 42) of Top Layer	400 - 600 kg/cm^2
Surface	Plain, or designed
Colours	Grey (other colours available upon request)

Application

The roof surface should be clean and free of all loose debris. If necessary the surface can be leveled using a cement mortar.

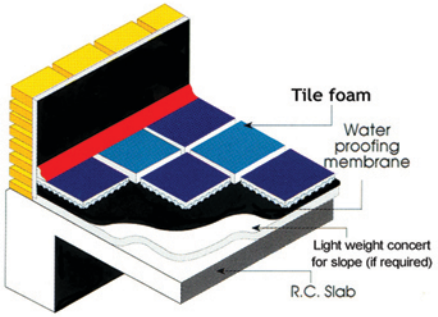
In large areas, expansion joints of 1cm width must be applied every 15m. The joint should be filled with suitable joint filling material.

Apply the waterproofing as specified.

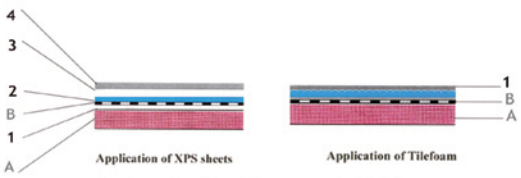
Install water drainage pipes and seal around them.

Lay TILEFOAM using cement mortar.

TILEFOAM for roofs



Tilefoam as a one step solution

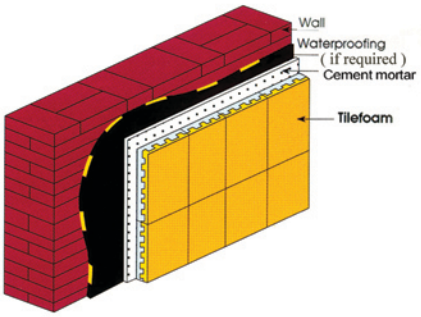


1- slope (optioual)
2- insulation
3- screed
4- roof tile

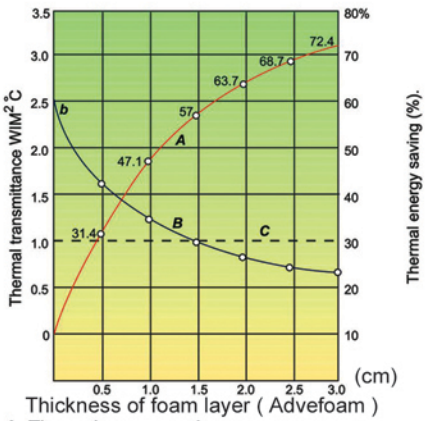
1- Tilefoam

Common requirements
Ⓐ R.C.Roof Ⓑ Waterproofing

TILEFOAM for walls



Thermal transmittance and thermal energy saving for hollow block roof.
insulated by tilefoam



A: Thermal energy saving.
B: Thermal transmittance.
C: Max thermal transmittance according to the code.
b: Thermal transmittance for non-insulated roof.

Thickness of foam layer (Advefoam) (cm)	% of energy saved
1 cm	47.1%
1.5 cm	57.0%
2 cm	63.7%
2.5 cm	68.7%
3 cm	72.4%

Patterns and colours

- Pharaonic pattern
- Marbella pattern
- Sheva pattern
- Plain surface

Gray colour, other colours upon request