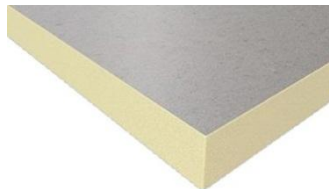


Technical data sheet №1.05

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PIR board PirroInterior

TS 5768-001-09151858-2015

PRODUCT DESCRIPTION:

PirroInterior are insulation boards made of rigid polyisocyanurate (PIR) with double-sided facing of kraft paper. PIR consists of a rigid closed cells, which provide to the board a high strength.

PIR has the lowest thermal conductivity compared to conventional types of insulation, which significantly reduce required insulation thickness.

PIR board has a small volume weight. Low water absorption of the board provides stability of characteristics throughout the entire service life.

PIR board construction is cut with knife or hack saw. During installation and operation the board doesn't generate fibrous dust, does not require respiratory protection. PIR is environmentally safe in operation, does not contain styrene and formaldehyde, it is chemically inert product.

PirroInterior is intended for mounting between load-carrying elements of the construction, as well as for mounting right up to them. Sustains load of floor constructions with a continuous insulating layer. Recommended method of boards fastening is mechanical, with fastening elements according to the base (wood, concrete etc.).

The board comes with "quarter", "tongue and groove" or straight ends without profiling. Profiled boards are used to create a continuous thermal insulation loop, providing high quality and reliability of boards joint, absence of "bridges of cold", and improve insulation performance on inclined surfaces.

PIR boards PirroInterior has a high fire-resistant properties: exposed to the flame, polyisocyanurate becomes charred and forms a crust that protects intact polymer layers.

PIR boards PirroInterior with "quarter" profiling are recommended for using as a middle layer of three-layer wall to ensure high quality of the joints and absence of "bridges of cold".

FIELD OF APPLICATION:

PirroInterior is a universal thermal insulation for use in the private housing construction as a middle or inner layer of the two-layer insulation of pitched roofs. Effective for the reconstruction of the cold attic into the attic floor by saving living space. Used in the attic and floor decks.

It is designed for internal wall insulation under dry finish (plasterboard, paneling, etc.), including additional insulation of the walls from inside. It is used in the reconstruction of historical buildings with preservation of the building facade.

PirroInterior is used for thermal insulation of floors, including in the systems of underfloor heating.

PirroInterior board is intended for use as a middle layer in the three-layer concrete wall panels with flexible and rigid connections, is also used as the lower thermal insulation layer in flat unexploited roofs of industrial and public buildings.

PRODUCT CHARACTERISTICS:

Characteristic	Description	Units	Value	Test method/ Standard
Facings	Upper facing: Kraft paper. Lower facing: kraft paper.	-	-	TS 5768-001-09151858-2015
End face profiling	"Tongue and groove" perimeter profiling (for ≥ 50 mm thickness)	mm	10 (depth)	TS 5768-001-09151858-2015
	"Quarter" perimeter profiling (for ≥ 30 mm thickness)	mm	15 (depth)	
	Without profiling	-	-	
Dimensions of the boards	Width x Length	mm	1200x600, 1200x1200, 1200x2400	GOST 17177-94, TS 5768-001-09151858-2015
	Thickness	mm	30..250	
	Thickness discrete values	mm	10	TS 5768-001-09151858-2015
Density	Isocyanurate without facings, ρ	kg/m ³	31 \pm 2	GOST 17177-94

Water absorption	Complete immersion, W		%	<1,0	GOST 17177-94								
Coefficient of thermal conductivity	Isocyanurate without facings, λ_{25}		W/m·K	0,023	GOST 7076-99, GOST 24816-81, Set of rules 23-101-2004								
	Isocyanurate without facings, λ_A		W/m·K	0,024									
	Isocyanurate without facings, λ_B		W/m·K	0,025									
Calculation data for application conditions A													
Board thickness, mm	30	40	50	60	70	80	90	100	110	120	130	140	150
Thermal resistance $R_T=d/\lambda_A, m^2 \cdot K/W$	1,25	1,67	2,08	2,50	2,92	3,33	3,75	4,17	4,58	5,00	5,42	5,83	6,25
Heat transfer coefficient $K=1/R_T, W/m^2 \cdot K$	0,8	0,6	0,48	0,40	0,34	0,30	0,27	0,24	0,22	0,20	0,18	0,17	0,16
Calculation data for application conditions B													
Board thickness, mm	30	40	50	60	70	80	90	100	110	120	130	140	150
Thermal resistance $R_T=d/\lambda_A, m^2 \cdot K/W$	1,20	1,60	2,00	2,40	2,80	3,20	3,6	4,00	4,40	4,80	5,20	5,60	6,00
Heat transfer coefficient $K=1/R_T, W/m^2 \cdot K$	0,83	0,63	0,50	0,42	0,36	0,31	0,28	0,25	0,23	0,21	0,19	0,18	0,17
Vapor permeability coefficient	Isocyanurate without facings, μ		mg/(m·h·Pa)		0,026		GOST 25898-2012						
Vapor permeability resistance	For facing layer, R		(m ² ·h·Pa)/m ²		0,016		GOST 25898-2012						
Strength of the board	Compressive strength at 10% deformation, σ_{10}		kPa (kg/cm ²)		≥120 (1,2)		GOST 17177-94						
	At bending, σ_i		kPa (kg/cm ²)		≥350 (3,5)		GOST 17177-94						
Flammability index	Class of flammability		-		G4 (KM4)		GOST 30244-94 (Federal law №123)						
Temperature range of application			°C		-70..+120		TS 5768-001-09151858-2015						

PACKAGE:

Boards are packed in bundles of up to 600mm in height and covered with shrink film.

The bundles are formed in the pallets up to 2400mm height. At the bottom of each pallet there are the support for the forklift. Each bundle and pallet is provided with the label.

TRANSPORTATION:

In covered vehicles in a horizontal position. Pack sizes are optimal for standard internal dimensions of road transport. Loading and transportation should comply with current shipping rules for the corresponding kinds of transport.

STORAGE:

Boards are stored on horizontal surface, closed from rain and direct sun exposure. It is necessary to ensure fire safety requirements. Boards should be stored in their original packaging.

When bundles are stored without the support bars, it is recommended to check the absence of sharp edges on the support surface.