Technical data sheet №1.06

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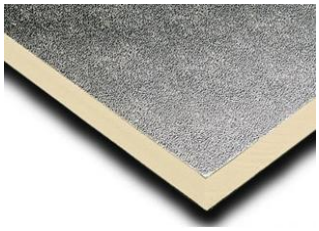
PIR -плита PirroVentiDuct

TS 5768-001-09151858-2015

Product description:



PirroVentiDuct is insulation board made of rigid polyisocyanurate (PIR) with double-sided facing of 50 microns embossed aluminum foil. PirroVentiDuct is the basic material for the manufacture of thermally insulated ducting used in ventilation, air heating and air conditioning (HVAC) of low pressure and is used to make all types of sections.

PIR consists of closed cells that provide mechanical strength to the board. It is a highly effective insulation with low thermal conductivity. The design of the duct PIR-board simultaneously performs both bearing and heat insulation functions, therefore eliminating the need for insulation of air ducts.

PIR-board PirroVentiDuct has group of flammability G1 that allows to use the air ducts on its basis within a fire compartment. Exposed to the flame, polyisocyanurate becomes charred and forms a crust that protects intact polymer layers. PIR does not support combustion, does not extend the flame, does not melt and doesn't form burning drops of the melt.

In comparison with other PIRRO products, PirroVentiDuct is available in 20mm thickness, with an increased thickness of facing layers to provide duct structures with stiffness comparable to the steel ducts.

Boards are available in the following types of delivery: Standart, Line and Practic:

• Type Standart – boards are not cut, with dimensions 1200×3000mm.

• Type Line - boards are supplied in pre-cut strips of varying width, ready for assembling in straight sections of standard profiles.

• Type of delivery Practic - boards are supplied in sheets cut out according to the specification of the customer for straight and shaped elements.

Standard flange connections enable the connection of the insulated duct to the ventilation systems on the basis of galvanized ducts.

The assembly of duct plates PirroVentiDuct is produced at the site, without use of plate-bending equipment and factory equipment. If it is necessary to make changes in the ventilation system (for example, if the openings at the facility do not meet the project) sections are cut and finalized at the site.

Facings of PirroVentiDuct are corrosion-resistant and ensure constant hygienic performance over the entire service life. Almost no effect resonating vibrations of the walls.

PirroVentiDuct is 5-8 times lighter in weight in comparison with steel thermal-insulated ducts.

Embossed facings and the absence of metric fasteners in joints of sections and fittings enhance the aesthetic properties of the duct.

FIELD OF APPLICATION:

PirroVentiDuct board is intended for the manufacture of air ducts used in ventilation, air heating and air conditioning (HVAC) of low pressure in residential building (including distribution inside), commercial, social and sports facilities, industrial premises.

Recommended for use in industries with humid air mode as well as for premises with high purity requirements (medical, food, pharmaceutical production), in renovation projects with the requirements to reduce the loads on the supporting structures of the building.

Allows to solve problems of design and architecture of the internal space of the room, does not require decorating ceilings.

PRODUCT CHARACTERISTICS:

Characteristic	Description	Units	Value	Test method/ Standard
Facings	Upper facing : aluminium foil 50mkm. Lower facing: aluminium foil 50 mkm.	-	-	TS 5768-001-09151858-2015
End face profiling	Type of delivery Standart	Without profiling		TS 5768-001-09151858-2015
	Type of delivery Line	Profiling of the long side, 45°cut		
	Type of delivery Practic	Project profiling		
Width x length of the boards	Type of delivery Standart	mm	1200x3000	GOST 17177-94, TS 5768-001-09151858-2015
	Type of delivery Line	mm	*x3000	
	Type of delivery Practic	mm	On project	
Thickness of the boards	Standard	mm	20	
Density	Isocyanurate without facings, ρ	kg/m3	35±5	GOST 17177-94
Water absorption	Complete immersion, W	%	<1,2	GOST 17177-94
Coefficient of thermal conductivity	Isocyanurate without facings, not more, λ25	W/m·K	0,026	GOST 7076-99
Thermal resistance	$R_T=d/\lambda_{25}$	$m^2 \cdot K/W$	0,77	-
Heat transfer coefficient	$K=1/R_T$	$W/m^2 \cdot K$	1,3	-
Vapor permeability resistance	For facing layer, R	(m2·h ·Pa)/mg	≥123	GOST 25898-2012
Strength of the board	Compressive strength at 10% deformation, σ10	kPa (kg/cm2)	≥150 (1,5)	GOST 17177-94
Flammability index	Class of flammability	-	G1 (КМ4)	GOST 30244-94 (Federal low №123)
Temperature range of application		°C	-70..+120	TS 5768-001-09151858 -2015

* - Boards are cut on order. The width of the strips is 100mm and then with increments of 10mm.

PACKAGE:

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

WORKS:

According to «Recommendations on the assembly of the insulated ducts based on PIR boards PirroVentiDuct».