

SEMPRE TERM FASADA EPS 038

thermal insulation in construction



PROPERTIES

- low thermal conductivity coefficient
- low water absorption even after prolonged contact
- high dimensional stability in the part

APPLICATION

SEMPRE TERM FASADA EPS 038 - white polystyrene boards are made by expanding polystyrene and forming the resulting balls at appropriate temperature and pressure into a block with a light cellular structure. It has a low coefficient of thermal conductivity, low water absorption and high dimensional stability in various temperature conditions. It is also a material that is biologically resistant to mold, fungi and bacteria, which gives it a wide range of applications. Intended for use in construction as thermal insulation in sets of products for insulating external walls of buildings meeting the requirements of the Assessment / Technical Approval / EAD 040083-00-0404, in external combined thermal insulation systems (ETICS) meeting the requirements of EN 13499. Styrofoam boards should be installed in accordance with the project documentation building, manufacturer's recommendations, while adhering to the principles of construction practice. SEMPRE TERM EPS boards should not be used in places exposed to temperatures above 85°C for a long time. To stick Styrofoam boards, use construction adhesives intended for this type of work, we especially recommend the TESOROMONT START TS-100 and TESOROMONT UNIVERSAL TU-200 adhesive mortars. Detailed information is available in the Product Technical Data Sheet (www.semprefarby.pl).

TECHNICAL DATA

Group of products Polystyren

Colors White

Dimensions 1000 x 500 mm / ± 2 mm

Product designation code EPS EN 13163 T(2)-L(2)-W(2)-S(5)-P(5)-BS115-DS(N)2-DS.(70,-)2-TR100

Parameters	Parameter	Norm	Value	Unit
	Thermal conductivity, coefficient λ_D (thermal resistance RD - table below)		≤ 0,038	kg/m ³
	Thickness		20-300 T2 (± 2)	W/ m K
	Length		L(2) (± 2)	mm
	Width	EN 13163:2012	W(2) (± 2)	mm
	Rectangularity in length and width	+ A1:2015	S(5) (± 5/1000)	mm
	Flatness		P(5) (± 5/1000)	mm
	Compressive stress at 10% CS relative strain		CS(10)70 (≥70)	kPa
	Bending strength (at 23°C/ 55% RH relative)		BS 115 (≥115)	kPa
	Tensile strength perpendicular to faces TR		TR 100 (≥100)	kPa
	Reaction of fire	EN 13501-1	E	---

Panel thickness, [mm]	10	20	30	40	50	60	70	80	90	100	110
Thermal resistance R [m ² -K/W]	--	0,50	0,75	1,05	1,30	1,55	1,80	2,10	2,35	2,60	2,85
Panel thickness, [mm]	120	130	140	150	160	170	180	190	200	210	220
Thermal resistance R [m ² -K/W]	3,15	3,40	3,65	3,65	4,20	4,45	4,70	5,00	5,25	5,50	5,75
Panel thickness, [mm]	230	240	250	260	270	280	290	300			
Thermal resistance R [m ² -K/W]	6,05	6,30	6,55	6,80	7,10	7,35	7,60	7,85			

USE INSTRUCTION**Substrates**

The substrate should be clean, load-bearing, compact, even and degreased. Loose grains and impurities as well as poorly bonded coatings of old emulsion paints should be thoroughly removed. The seasoning periods of the preceding coats should be observed. Use BUDOMONT ZS-640 mortar to fill any defects and irregularities in the substrate, and BUDOMONT ZT-620 mortar to fill deeper areas. Fungus and algae infested surfaces should be disinfected with ALGHESIL algae and fungus remover. SEMPRES TERM FASADA EPS 038 polystyrene boards should be installed according to the building design documentation, the manufacturer's recommendations, and at the same time following the rules of the trade. For installation of polystyrene boards, use building adhesives designed for this type of work, especially we recommend TESOROMONT START TS-100 and TESOROMONT UNIVERSAL TU-200 adhesive mortars. Detailed information is available in the Technical Product Data Sheet (www.semprefarby.pl).

Product preparation

The boards should not be exposed to weather conditions for longer than 7 days. Yellowed surfaces of the boards should be sanded and dusted before use.

Application

Start gluing the first layer of polystyrene foam at a distance of min. 20 cm from the ground level. In order to eliminate the so-called overlapping of foamed polystyrene, it is recommended to use a starter strip which, after levelling, is screwed with dowels to the wall of the building being insulated. When fixing Styrofoam panels, apply adhesive mortar along the perimeter of the panels with a strip 3 to 4 cm wide, and on the remaining surface apply 6 to 8 patches with a diameter of 8 - 12 cm, or 3 larger patches so that when the panel is pressed down, the adhesive covers at least 40% of the panel surface. The amount of adhesive mortar and layer thickness (depending on the condition of the substrate) should be selected so that good contact with the wall is achieved. However, the thickness of the adhesive layer should not exceed 1 cm.

STORAGE

Store the product in a place protected from damage, direct sunlight and other adverse weather conditions and from contact with substances containing organic solvents and their vapours.

ADDITIONAL INFORMATION

SEMPRES TERM FASADA EPS 038 does not age, rot or decay. Protected against UV radiation, it does not "fade" as a result of natural ageing. However, a prerequisite for the block's durability is its UV protection. In the absence of such protection, the product deteriorates, crumbling over time. It is resistant to temperatures below 80°C. Above this temperature, the material softens and melts.

SAFETY AND HYGIENE AT WORK/FIRE-PROTECTION

Flammability class E according to EN 13501-1.

It is not classified as hazardous to human health and life or to the environment under current legislation. Working with polystyrene does not require any personal protective equipment such as gloves, dust masks, protective clothing and goggles. Observe basic health and safety rules when working.

The manufacturer guarantees the product quality, but shall not be liable in terms of its use. The information herein provided is based on the manufacturer's knowledge resulting from many years of observations. This information cannot however replace professional know-how of the contractor and does not exempt the contractor from complying with the rules of the building art and the safety and hygiene at work, thus do not constitute any legal grounds for the settlement of disputes in court. For further questions or doubts, please contact the manufacturer.