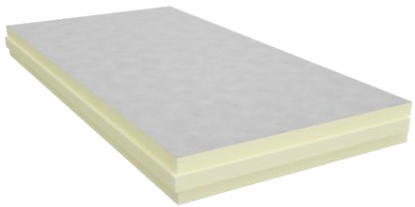
Parameters of thermal insulation boards temPIR® ETX and ETICS system



Kind of core	Rigid polyisocyanurate foam (PIR)					
Apparent core density	ρ = 30 kg/m^3					
Declared heat transfer coefficient for lining	λ_D = 0,027 W/m•K for thickness d < 80 mm λ_D = 0,026 W/m•K for thickness 80 ≤ d < 120 mm λ_D = 0,025 W/m•K for thickness d ≥ 120 mm					
Board facing	**ETX** - lining from glass reticular fibre					
Standard boards dimensions [mm]	600 x 1200 / 1200 x 2400					
Joint types	**FIT** - flat milling, **TAG** - tongue and groove*					
Board thickness [mm]	Available boards thickness in 10 mm steps					
	30**	**40****	**50**	**60**	**80**	**100**
Thermal resistance R_D [m²K/W]	1,10	1,45	1,85	2,20	3,05	3,80
Heat transfer coefficient U [W/m²K] (for wall)	0,78	0,61	0,49	0,42	0,31	0,25
Board thickness [mm]	**120**	**140**	**150**	**170**	**180**	**200**
Thermal resistance R [m²K/W]	4,80	5,60	6,00	6,80	7,20	8,00
Heat transfer coefficient U [W/m²K] (for wall)	0,20	0,17	0,16	0,14	0,14	0,12
Compression strength at 10% of deformation	σ ≥120 kPa - 20 ≤ d_N < 30 mm σ ≥150 kPa - 30 ≤ d_N ≤ 250 mm					
Tensile strength	(20 ≤ d_N < 50 mm): NPD (50 ≤ d_N ≤ 250 mm) ≥ 80 kPa, TR 80					
Reaction to fire (board)	20-49: F class, 50-250: E class					
Fire spreading for ETICS system	non fire spreading [acc. PN-B-02867]					
Reaction to fire for ETICS system	B-S1, d0					

* dimensions of boards with joint types are 2 to 4 % smaller

** **FIT** joint for thickness 30, 40 mm

Milling: FIT available for the boards from 30 mm, TAG for the boards from 80 mm

Notes:

The termPIR® ETX insulation system has an European Technical Assessment No.: ETA 17/0066, "External Thermal Insulation Composite Systems (ETICS) with rendering". Composite compliant with ETAG 004 as well as a Factory Production Control Certificate for the ETICS system.

termPIR®
insulation boards

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Insulation boards termPIR®

EXTERNAL THERMAL INSULATION COMPOSITE SYSTEMS

ETICS (ETX)

Modern thermal-insulation material

Green buildings make use of smart technologies which allow for a high level of heating-related comfort and for erecting buildings featured with low energy consumption and dwelling costs.

termPIR® boards provide thermal insulation that is more efficient when compared with other constructional materials, like mineral wool or Styrofoam. They are energy-saving, long-lasting and safe for use in residential buildings.

INSULATION CLASSES	
A+++ λ= 0,018	termPIR® MAX18
A++ λ= 0,019	termPIR® MAX19
A+ λ= 0,022	termPIR® *
A λ= 0,025 - 0,027	termPIR® **
B λ= 0,029 - 0,034	STYROFOAM XPS
C λ= 0,031 - 0,044	STYROFOAM EPS
D λ= 0,031 - 0,045	MINERAL WOOL
E λ= 0,042 - 0,046	CELLULAR CONCRETE

AMENDED VALUE FOR DIFFERENT MANUFACTURERS

* for termPIR® AL, termPIR® AGRO AL, termPIR® AGRO P, termPIR® AL GK, termPIR® AGRO P REV

** for termPIR® ETX, termPIR® WS, termPIR® PK, termPIR® BWS, termPIR® PK REM termPIR® BT

Why insulate with termPIR® boards?

They make a great insulating material - λ_D = **0,025 - 0,027 W/m·K*** a **120 mm** plate is sufficient (applies to the wall partition) to meet the technical conditions for 2021.

The boards are hard and damage resistant - σ_{10} = **150 kPa** (from 30 mm)* will not change shape over time (they do not slump), as well as being light weight - only **3,6 kg/m²** boards of **120 mm** in thickness.

They are water resistant - water absorption below **2%**** forget replacing damp insulation boards, and you can install them almost all year round.

They are **biologically** and **chemically** resistant you do not have to share your home with rodents and insects or worry about fungi or mould.

Our boards feature increased **fire resistance** they are a self-extinguishing material, i.e. they do not support combustion.

* for termPIR® ETX, *** for termPIR® AL / WS

ETICS (ETX) thermal insulation system

We have developed along with **Termo Organika** the ETICS thermal insulation system witch allows users to make the most of the advantages of modern PIR insulation material when used in the most commonly used building insulation system: External Thermal Insulation Composite System (ETICS).

This system is composed of termPIR® ETX insulation boards, specially selected adhesives, fibreglass reinforcing mesh, several types of plaster and paints as well as dedicated primers. The system comes complete with a set of accessories necessary for proper installation of the system.

In order to meet our customers' expectations, we have developed "Guidelines on Installing ETICS Insulation Systems", and our sales representatives as well as the technical support department will be happy to assist customers, offering expert advice and tips on the installation of such a thermal insulation system.

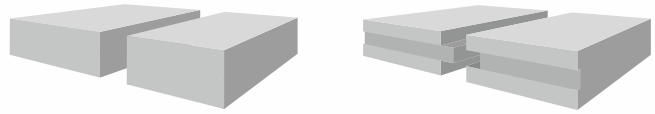
ETICS system installation steps

01. Installation of a starter strip
02. Bonding insulation panels termPIR® ETX using **Termo Organika** adhesive
03. Corner and dowels reinforcement
04. Bonding reinforcing mesh, priming after 3 days
05. Application of plaster after 24 hours from priming
06. Application of thin-coat plaster

For more information please visit our website.

Joint types

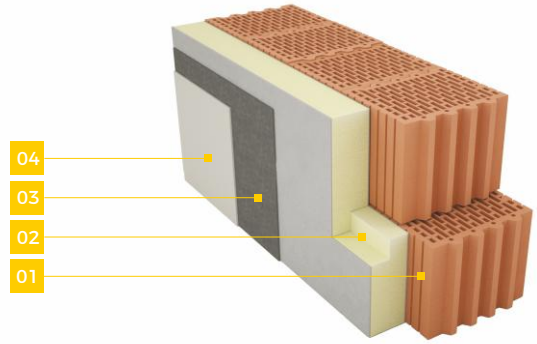
Inter locking edges improve thermal performance. As part of our services, we produce different joint types in boards.



FIT -flat milling
(only for thicknesses up to 50 mm)

TAG - tongue and groove joint
(only for thicknesses up to 80 mm)

Walls made of termPIR® ETX gurantee maximum of thermal insulation. It is a perfect solution for walls and passive houses. At a thickness of only **25 cm**, we obtain a heat transfer coefficient less than **0,10 W/m²K**



Thermal insulation of the external wall using the ETICS method

01. Hollow brick wall
02. termPIR® ETX insulation panel glued and attached mechanically*
03. Reinforced fibre mesh, embedded in all-purpose adhesive *
05. Thin plaster coat and render finish.

* The ETICS thermal insulation system comprises a termPIR® ETX insulation board and Termo Organika components. For more information, please go to www.termpir.eu and read "Guidelines on Installing ETICS Insulation Systems".