




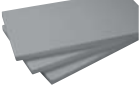





Characteristics of the products			
	Traditem® Mortar	In the Traditem Flexible system, mortar for fixing Traditem EPS panels and Traditem EPS-G	<ul style="list-style-type: none">- High-bonding capacity.- Maximum compatibility with Traditem EPS and EPS-G panels.- Resistant to rain water.- Permeable to water vapour.
	Traditem® Flexible Mortar	Mortar for facings on Traditem EPS and Traditem EPS-G insulation panels	<ul style="list-style-type: none">- Highly deformable.- Does not contain cement.- Ready to use.
	Morcemcrl Flexible	Synthetic mineral covering for waterproofing façades with elastic properties. Ideal for restoration of façades. Elastic and highly deformable.	<ul style="list-style-type: none">- Highly elastic. Highly deformable.- Fills cracks of up to 2 mm.- Range of colours and finishes.- Resistant to ageing, city atmospheres and UV radiation.- Anti-mould.- Anti-slime.- Washable.- Manual or spray application.
	Morcemcrl Primer	Priming of synthetic resins prior to decorative finish with Morcemcrl Flexible.	<ul style="list-style-type: none">- Provides a base or substrate with homogeneous absorption.- Encourages coverage.- Facilitates adhesion.- Enhances durability.
	Traditem® EPS Panel	Expanded Polystyrene Panel used as an insulation panel.	<ul style="list-style-type: none">- Format: 1000 x 500 mm- Thickness: 20, 40, 50, 60, 80, 100, 120 mm- Stabilised- Thermal Conduction: (λ): 0.036 - 0.039 W/mK- Reaction to fire: E - Self-extinguishing (UNE-EN 13501-1)
	Traditem® EPS-G Panel	Expanded Polystyrene Panel with graphite used as an insulation panel.	<ul style="list-style-type: none">- Format: 1000 x 500 mm- Thickness: 20, 40, 50, 60, 80, 100, 120 mm- Stabilised- Thermal Conduction: 0.032 W/mK- Reaction to fire: E - Self-extinguishing (UNE-EN 13501-1)
	Traditem® Mesh	Fibre glass mesh with anti-alkaline treatment for reinforcing the Traditem® Flexible mortar layer. Provides the system with surface resistance and avoids the appearance of cracks.	<ul style="list-style-type: none">- Total weight of the mesh: 160 g/m² (±10%)- Roll format.- Width 1 m x Length 50 m.
	Traditem® Anchor fixings	Impact anchor fixings, used for fixing insulation panels in the Traditem Flexible System.	<ul style="list-style-type: none">- Composition: Polypropylene- Does not rust.- Fast to install.- Range of sizes according to thickness of insulation panel to be used. Consult the Grupo Puma Commercial Department.
	Traditem® Reinforcement Profiles	Range of profiles for reinforcing corners and gaps in the Traditem Flexible System.	Grupo Puma offers a range of reinforcement profiles for the Traditem Flexible System. Consult the Grupo Puma Commercial Department.

System Traditem® Flexible



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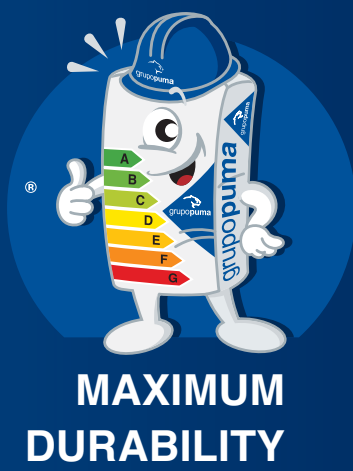
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System Traditem® Flexible



System Traditem® Flexible

EXTERNAL THERMAL INSULATION
FOR BUILDINGS




Garantía para la construcción



Traditem® Flexible System

The **Traditem® Flexible System** is an external thermal insulation system (EWI / ETICS) whose main characteristic is **MAXIMUM DURABILITY**.

It stands out from other EWI due to:

Excellent deformability

Both the mortar that covers the insulation panels as well as the decorative finish. This characteristic, considerably increases the durability of the system and its resistance to cracking.

Excellent resistance to impact

Free from efflorescence

Traditem® Flexible mortar does not contain cement in its composition.

Construction solution for high-quality finish

Dirt-resistant, highly breathable and highly waterproof.

Types of Traditem® Flexible Systems



EPS

System Traditem® Flexible EPS

- Use on new builds and thermal restoration.
- Complies with Spanish Technical Building Code (CTE).
- Insulation comprised of stabilised EPS panels, called Traditem EPS.
- Permeable to water vapour.
- Resistant to rain water.
- High resistance to impact.



EPS-G

System Traditem® Flexible EPS-G

- Use on new builds and thermal restoration.
- Complies with Spanish Technical Building Code (CTE).
- Insulation comprised of EPS panels with stabilised graphite, called Traditem EPS.
- Greater insulation capacity than the Traditem Flexible EPS System.
- Permeable to water vapour.
- Resistant to rain water.
- High resistance to impact.

Properties of the Traditem® Flexible System



**Thermal Insulation
Sound Insulation**

The **Traditem® Flexible** Insulation System has been designed to provide the cladding with a high level of thermal resistance, generating excellent conditions of comfort and hygiene.



An amortizable solution

The thermal insulation provided to the building's façade by the **Traditem® Flexible** system contributes towards the lowering of the energy consumption necessary for its heating/air-conditioning and therefore the consequent energy saving.



Ideal for the Thermal Restoration of façades

The installation of the **Traditem® Flexible** System, by being a system that is applied externally, does not affect the normal use of the building and cause a lack of useful space. That's why it is the perfect solution for thermal restoration on existing buildings and recommended as a solution for improving the energy classification of existing buildings.



High Level of Impermeability

The mortars comprising the **Traditem® Flexible** System are designed to provide a high degree of impermeability to the cladding.



**Breathable
Lowering of risk of condensation**

Apart from being waterproof, the **Traditem® Flexible** System also permits the passing of water vapour, facilitating the exit of accumulated humidity from the interior, thus lowering the risk of humidity caused by condensation.



Lowers pressure and increases durability.

The materials that comprise the building's structure, as well as the cladding, when finished with the **Traditem® Flexible** System, are not subjected to thermal expansion and contraction, originating from changes in temperature, and therefore the lowering of fatigue on these materials, thus increasing its durability.



Traditem Flexible = Maximum durability

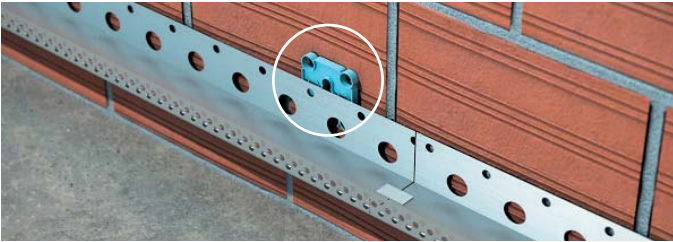
The excellent deformability of the **Traditem® Flexible** System and the **Morcemcrlil Flexible** decorative finish, give these materials excellent resistance to the continuous stress to which they are subjected.



Quick and easy to apply


The same installation company carries out the insulation to the façade, the waterproofing and the final decorative finishing.

Application




Fixing the Panels with Traditem® Flexible mortar

Once the starter profile has been installed, fix the insulation panels to the substrate with **Traditem®** mortar.

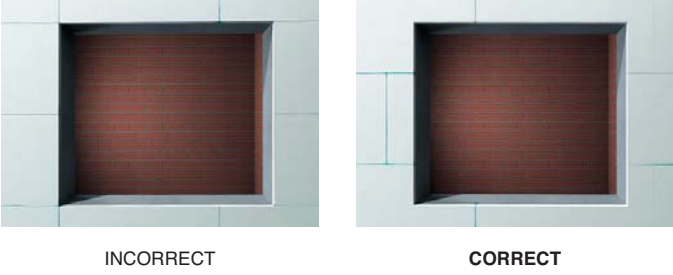


Use the notched trowel or beaded mortar method to fix the panels according to the substrate's flatness.

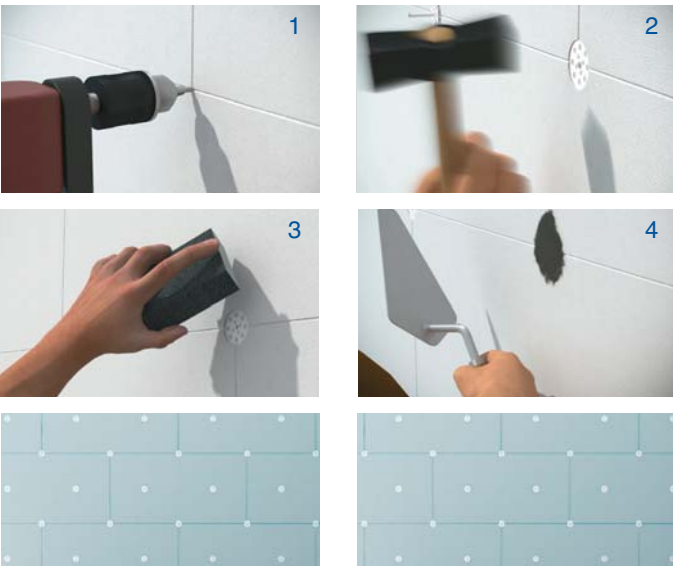


Distribution of the Insulation Panels

The panels are distributed on the façade in a way that the joints between the panels of the different rows are interlocked with a minimum gap of 25 cm.

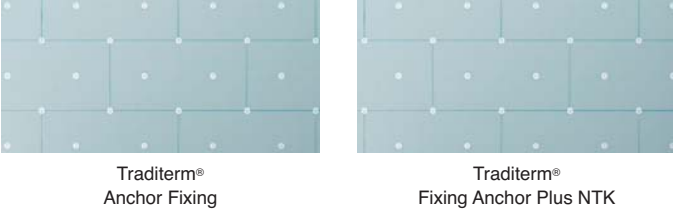


With regards to the formation of hollows in the façade for windows and doors etc, avoid the joints of the insulation panels being aligned with the corners of the hollows. This will avoid future cracking.

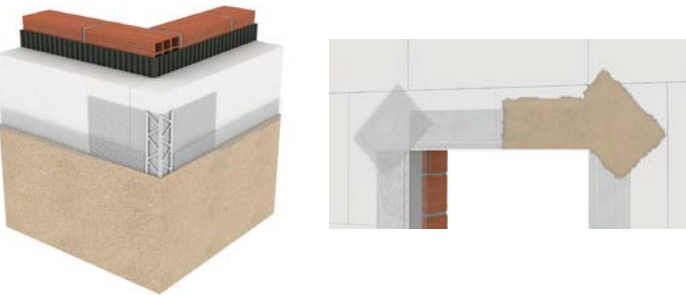


Mechanical fixing of the Insulation Panels

At least 24 hours after fixing the insulation panels with Traditem® mortar, the fixing should be complemented with **Traditem®** Anchor Fixings.




The distribution and number of anchor fixings to be installed will depend on the type of fixing being used. The fixing should be installed and cut 1-2 mm into the panel's surface. Next the depression made on the surface of the insulation panel is levelled with **Traditem®** mortar.



Reinforcement Profiles


The corners of the façade as well as the edges of the existing hollows must be protected and reinforced with reinforcement profiles.

Cut mesh strips of 20 x 40 cm, and fix them with **Traditem® Flexible** mortar on all the corners of the hollow.

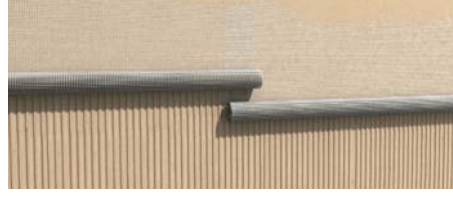


Finishing the Insulation Panels


Spread a layer of **Traditem® Flexible** mortar directly onto the insulation panel (or on a previously reinforced surface) and then comb with a No. 6 notched trowel.



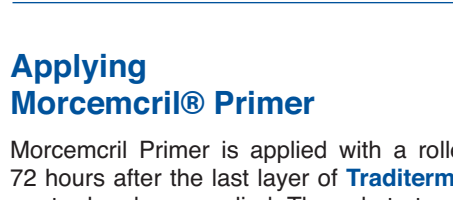
Unfold the Traditem® Mesh from top to bottom over the trowelled area, and then apply pressure to the grooves with the trowel.




The thickness of this layer should be between 1 - 1.5 mm.



The overlay between meshing should be at least 10 cm wide.




Once this reinforced layer has hardened (3-4 hours), apply a fresh layer of **Traditem® Flexible** mortar (1 mm thick) to cover the squares of the mesh and finish the covered area.



Applying Morcemcrlil® Primer

Morcemcrlil Primer is applied with a roller, at least 72 hours after the last layer of **Traditem® Flexible** mortar has been applied. The substrate must be dry before applying.



Applying the Morcemcrlil® Flexible Decorative Finish Range

At least 24 hours after applying the Morcemcrlil Primer, apply the **Morcemcrlil® Flexible** decorative finish with a plastic trowel. To know more about the installation process of the **Traditem® Flexible** System, we recommend contacting the Technical Department of Grupo Puma.

Thermal Analysis

Comparative (*) Study of Thermal Conductivity (U) of the **Traditem® Flexible EPS** and **Traditem Flexible EPS-G Systems**, for a façade comprising the following cladding:

ELEMENT	Thickness (m)
Solid brick	0.115
Unventilated air chamber	0.02
Single hollow brick	0.06
Plaster	0.015

Thermal Conductivity (U) of the façade can be calculated:

Facade without insulation	Thickness (m)	Thermal resistance (m²K/W)
ELEMENT		
Solid brick	0.115	0.1200
Unventilated air chamber	0.02	0.1700
Single hollow brick	0.06	0.0900
Plaster	0.015	0.0283
Thermal resistance interior surfaces		0.1300
Thermal resistance external surfaces		0.0400

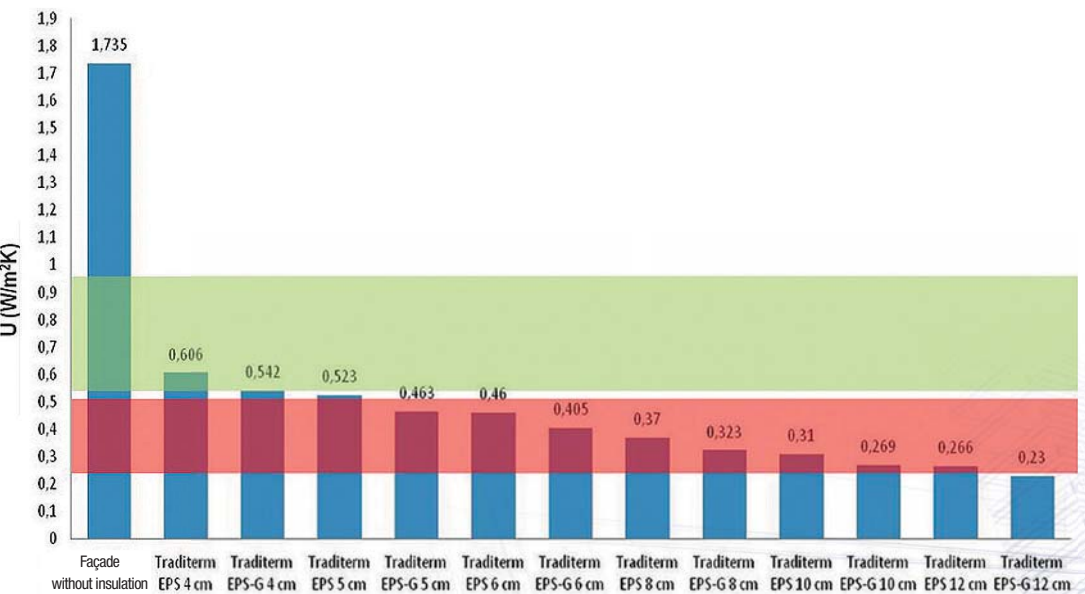
Thermal resistance (m²K/W) U (W/m²K)	
	0.58
	1.735

In view of the (U) obtained, the façade shows a highly deficient insulation level and therefore suffers a high degree of energy loss.

To reduce these energy losses to the façade, it is advisable to use the **Traditem Flexible EPS System** and **Traditem EPS-G System**, with different insulation thicknesses. Therefore the following values will be obtained (U):

Insulation Thickness (mm)	Thermal Transmittance	
	Traditem Flexible EPS	System Traditem Flexible EPS-G System
40	0.606	0.542
50	0.523	0.463
60	0.460	0.405
80	0.370	0.323
100	0.310	0.269
120	0.266	0.230

In summary



(*) Analysis of the blind part of the façade.

System Traditem® Flexible