

SUSTAINABLE BUILDING DEVELOPMENT EIFS RHENATEC SYSTEM

RHENATEC®

What is EIFS or how to design an exterior thermal insulation system?

EIFS (Exterior Insulation Finish Systems), is an exterior thermal insulation system for ventilated walls and slabs that works through the superposition of the following layers:

• Adhesion of the insulating material.

This first layer consists of applying the elastomeric mortar Rhenacret Muro Fix as an adhesive paste to the insulating material to adhere it to the substrate, or using the polyurethane foam Rhenapur PU Adhesive special for express bonding in EIFS systems.

• Insulating material

Depending on the thermal regulations required by the geographical area and/or the client's requirements, there are different thicknesses and densities of expanded polystyrene (EPS) sheets used as insulating material in EIFS systems.

EPS is a rigid foam of great workability and resistance in relation to its reduced weight, consisting of a number of cells which contain still air occluded inside, which gives it an outstanding thermal insulation capacity.

• Base coat of elastomeric mortar with fireproof reinforcing mesh.

La capa base consiste en la aplicación de una primera mano de mortero elastomérico Rhenacret Muro Fix sobre la plancha de EPS, embebiendo en esta capa una malla Rhenatec de fibra de vidrio ignífuga como refuerzo, sobre la cual se aplica una segunda mano de mortero elastomérico ocultando la armadura de malla, dando una terminación lisa y fina como enlucido.

• Exterior finishing

This application consists of priming with Rhenacret Base Paint as a base coat over the plaster made with Rhenacret Muro Fix elastomeric mortar, over which Rhenacret Muro Finish is applied as a finishing elastomeric texture.



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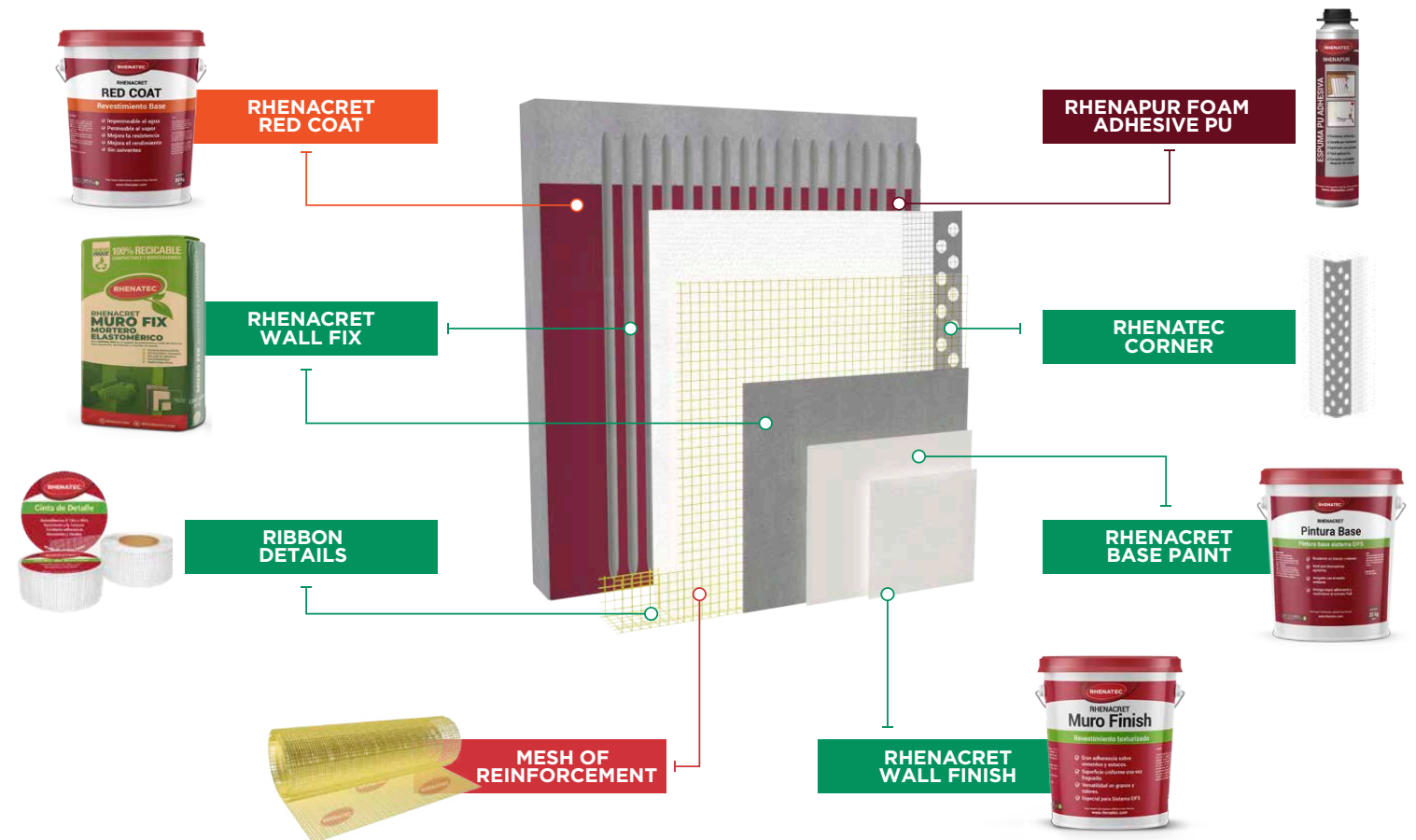


Where to apply the EIFS RHENATEC system?

This system was developed to improve energy efficiency in constructions for housing, buildings, health facilities, shopping centers, educational facilities, offices, industries, among others, being a great ally to reduce the extra requirements of operating temperatures for air conditioning and air conditioning in general, providing an excellent barrier between the outside climate and the inside of the enclosures, cutting the thermal bridge from the outside of the envelope, being a lightweight but strong system, which does not add extra weight to the surface, since it is composed mainly of air.

It is important to note that, in developed markets, this type of system has been regulated so that only one manufacturer provides the complete solution of the construction scheme. Thus, the responsibility for the correct performance of the system corresponds to a single supplier.

EIFS RHENATEC SYSTEM DIAGRAM



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ADVANTAGES OF THE EIFS RHENATEC SYSTEM

- Energy efficiency

Stabilizes interior temperature, reduces thermal bridges, condensation and air conditioning costs by 30 to 60%.

• Design flexibility

Can be applied in almost any shape or design. EPS sheets can be cut and adapted to any base and combine various architectural shapes, achieving the detail that the builder requires.

• Weight

Minimal weight compared to other traditional construction systems.

• Weather resistant

Impermeable to the exterior, allowing interior-exterior vapor exchange.

• Sustainable and durable

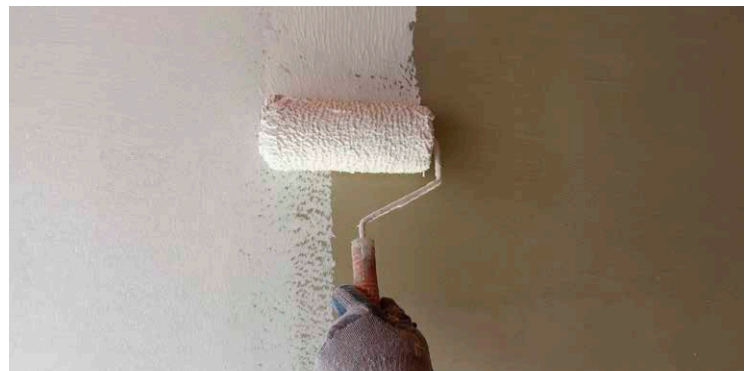
The elements that make up the EIFS system are designed with sustainable components to remain unalterable over the years. There is no loss of color, no cracks, no corrosion and it is resistant to dirt.

• Cost-effective

Reduces construction time. It offers low cost; it is quick to install and maintenance free.

• Wide application

It can be installed on an endless number of substrates, such as reinforced concrete walls, stuccoed masonry walls, light wood frame construction OSB, plywood, minimum 8 mm fiber cement board, minimum 12 mm gypsum board, among others.



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MORE ABOUT THE EIFS RHENATEC SYSTEM

The EIFS RHENATEC system components are distributed throughout Chile and include the following products:

- **Rhenacret Red Coat:** textured base coating to protect OSB and plywood structures from humidity, besides allowing a better anchorage of the EPS board adhered to this type of substrates.
- **Rhenacret Wall Fix:** high performance elastomeric mortar, with excellent workability, adhesion power and plastering quality.
- **Rhenapur PU Adhesive Foam:** polyurethane foam ideal for express bonding of EPS boards.
- **Rhenapur Cleaner:** spray for cleaning polyurethane foam can valves and applicator guns.
- **Rhenatec Professional PU Gun:** professional gun for polyurethane foam application.
- **Rhenatec Reinforcing Mesh:** fireproof fiberglass mesh for system reinforcement.
- **Expanded Polystyrene Sheet (EPS):** Insulating material in sizes, thicknesses and densities required by the customer.
- **Rhenatec Detailing Tape:** Self-adhesive tape with fiberglass for detailing.
- **Rhenatec Corner:** PVC corner piece with fiberglass mesh for reinforcement of joints.
- **Rhenatec Corner Drip Cutter:** PVC corner with fiberglass mesh for reinforcement of joints and drip cutter.
- **Rhenacret Base Paint:** latex applied as a base coat prior to the application of grain or final texture.
- **Rhenacret Wall Finish:** textured coating with grains for final finishing, in standard and water-repellent versions.
- **Rhenacret Water-repellent enamel:** water-repellent enamel with UV protection for walls and facades.
- **Rhenacret Impermeabilizante QHC:** colorless solvent-free waterproofing for walls and facades.



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