

The Resil and the Isolation

Resil Basic polymers in the external isolation

REDUCTION OF COSTS WITH SYSTEMS OF THERMAL ISOLATION BY THE OUTSIDE TO SAVE ENERGY FROM THE BEGINNING.

WITH THE NEW CLASSIFICATION OF RESIL BASIC POLYMERS IS EVERYTHING EASIER

From now it will be easier that never find the product RESIL BASIC POLYMERS ideal for each application. From January of this year, the customers have of the polymeric dusts dispersables RESIL BASIC POLYMERS. Also we have taken advantage of this occasion to simplify the nomenclature and do it more transparent.

FIVE LETTERS. COUNTLESS ADVANTAGES

To each product has been him assigned a letter that symbolises the main property of the same. Of this form, facilitates and unifies internationally the identification of the products by his technical characteristics, and guarantees a correct election of the aptest product.

ALWAYS ONLY; THE DUSTS POLYMERS DESPERSABLES RESIL BASIC POYMERS

The polymeric dusts dispersables RESIL BASIC POLYMERS possess no only some specific properties, but besides they share a high level of quality that contributes them enormous advantages:

- Maximum quality in all the applications
- Full security of application
- Upper quality and constant of the products
- Fulfillment of all the notable norms
- Extraordinary trabajabilidad and prolonged open time
- Excellent mechanical resistance
- Formulation exenta of agents coalescentes and of plastificantes (low broadcasts) All the

polymeric dusts dispersables **RESIL BASIC POLYMERS** share these.

RANGE OF PRODUCTS RESIL BASIC POLYMERS

RESIL BASIC POLYMERS **N** for a neutral rheology.

Polymeric dusts dispersables RESIL BASIC POLYMERS characterised by not altering the rheology. They allow one almost total freedom of formulation and are apt for the most distinct applications: adhesive for baldosas, systems of thermal isolation by the outside and mortars autonivelantes.

RESIL BASIC POLYMERS **T** for a high thixotropy.

Polymeric dusts dispersables RESIL BASIC POLYMERS that improve particularly the thixotropy. They are excellent, for example, to formulate resistant products to the descuelgue and of effective application in the walls like adhesive for baldosas and layers of regularisation.

RESIL BASIC POLYMERS **L** for a nivelación optimum.

Polymeric dusts dispersables RESIL BASIC POLYMERS that confer fluidity. They are especially ideal to obtain smooth surfaces since they improve the properties antiespumantes, avoid the sedimentación and favour at the same time the fluidity.

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RESIL BASIC POLYMERS **F** for a maximum fluidity without fluidificantes.

Polymeric dusts dispersables RESIL BASIC POLYMERS that possess properties fluidificantes and that they can exhibit optionally the rheology of the fluidificantes synthetic. They are especially recommended for all the applications that demand an ecological impact minimum and a high security of processing.

RESIL BASIC POLYMERSS **H** for an extraordinary hydrophobia.

Polymeric dusts dispersables RESIL BASIC POLYMERS with an effect hidrófobo particularly high. They use in all type of mortars of revoque and of rejuntado, in systems of thermal isolation by the outside.



The exhaustion of the world-wide natural resources by the abuse of the no renewable energies joins to the aggravating of the enormous cost that supposes to find alternatives. Therefore, the rises of the energetic price go to persist, remaining only a possible form to reduce the costs: save energy.

BALANCE BETWEEN ECOLOGY And ECONOMY.

In the buildings, the best form to save energy is by means of an asilamiento thermal suitable. What better is said isolation, lower is the necessary energy to create an inner climate perdurable and pleasant at the same time. The type of climatización, air conditioned or heating, is indifferent, since the thermal balance depends on the transfer of energy. The thermal isolation reduces the energetic cost, contributes to conserve the constructive quality, reduces the common costs and diminishes the environmental impact.

CONSULT TO THE SPECIALIST!

With the range of products RESIL BASIC POLYMERS, have contributed of decisive form to the development of the systems of asilamiento thermal by the outside from his apparition in the market. The polymeric dusts dispersables RESIL BASIC POLYMERS are ligantes polymeric that improve the properties of the adhesive and of the basic coatings used in the SATE. With the modification pursues transform concrete properties of the mortar and , therefore, of all the system.

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DECREASE OF THE ENERGETIC COST

All effective thermal isolation has always a same starting point: the external closings. As it describes to continuation, is here where the systems SATE achieve substantial energetic savings.

According to the type of construction, the loss calorífica through the closings can reach 75%. In the houses unifamiliares and semiadosadas, for example, the installation of a system of thermal isolation can translate in an energetic saving of until 60%.

Real saving.

Like this they ascertain it independent studies. According to a study made in a house a unifamiliar, with walls of 24 cm of thickness, the installation of a system of thermal isolation reduces the energetic consumption by heating, generated in 40 years, of 24 200 kwh/to to 9600 kwh/to. A decrease of such type supposes an approximate saving of crude of 65000 litres, sufficient quantity so that a car visit 830 000 km, that is to say, surround 20 times the Earth.

Besides, an ecobalance positive.

The environment also benefits . If we split that in the previous example the fuels consumed have been fossils, the system of asilamiento thermal used would have avoided the broadcast of 216 tonnes of carbon dioxide. The systems of thermal isolation by the outside reduce of significant form the impact on the environment, present an ecobalance excellent and fulfil the principles of sustainability.

The external isolation in front of the interior.

In the buildings without thermal isolation can resort to a thermal isolation by the outside, or by the interior. Whenever it was possible will give preference to the isolation by the outside. This type of isolation allows to take advantage of to the maximum the capacity of the walls to accumulate heat. Likewise, they avoid the thermal bridges and prevent successfully the constructive damages by training of water of condensation without having to invest in costly corrector measures.

External closing with trasdosado inner.

Advantages:

-Lower costs of heating in the rooms of less use.

Problems:

-It does not take advantage of the thermal inertia

-Brusque thermal changes in the mampostería

-Pipes and pipes in the walls in the zone of frosts

-Thermal bridges

-It is used to be necessary an additional isolation by the interior against the steam to avoid the

condensation. External closing with trasdosado external.

Advantages:

-Excellent thermal isolation

-Big saving in costs of heating

-Alone feeble thermal bridges -maximum aprovechamiento of the thermal inertia

-Pleasant climate -protection against the heat in summer

-They avoid the constructive damages of thermal origin

-Big flexibility of design -increase of the value of the construction

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Problems:

-No apt for the restoration of façades of buildings protected.

SIMPLY INTELLIGENT : RATIONAL THERMAL ISOLATION

The systems of thermal isolation by the outside combine a series of materials with a specific function each one. The composition of the systems depends mainly of the climate and of the type of edificación.

1- Wall. Between the apt supports for systems SATE fits to quote the mampostería of brick, revoked and without revoking, the concrete, the wood and determinate materials derived of the wood.

2- Adhesive. Dry mortars cementosos modified with polymeric dusts dispersables RESIL BASIC POLYMERS. Whenever it was necessary by reasons of security, the plates termoaislantes will be able to fix with special swearwords.

3- Insulating plates. In addition to the plates of rigid foam of poliestireno can use other insulating materials like the mineral wool, the cork or the wool of rock.

4- Basic coating. Dry mortar cementoso modified with polymeric dusts dispersables RESIL BASIC POLYMERS and reinforced with a mesh of fibre of glass that provides mechanical stability and an additional protection against the intemperie.

5- Mesh of fibre of resistant glass to the álcalis. It increases the mechanical stability of the system when contributing a high resistance to the traction.

6- Finishing. Revocos Or revestimientos decorative and tiled ceramic that do not put limits to the design.

ONE TO ONE. THE MAIN COMPONENTS:

The insulating material.

It is the core of the system and can be composed of plates of rigid foam of poliestireno, of mineral wool, of cork, or of wool of rock. All they are excellent thermal insulators. The insulating power of the constructive materials measures by the coefficient of thermal transmission (K).

The coefficient of thermal transmission.

Used to determine the flow of heat, in watts, that crosses a square metre of wall when between both sides exists a difference of temperature of a degree Kelvin. Gráficamente Can represent by means of a hanged light bulb in the centre of a sphere. Depending of the type of closing will vary the quantity of heat transferred to the outside. The values K will be, therefore, determinants of the thermal balance. The temperatures of state of balance depend on the quantity of heat that can retain a wall. The coefficient of thermal transmission of the materials of construction differ enormously between himself. The materials macizos possess coefficients K very high, whereas the thermal insulators present values very low.

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Table of coefficients of thermal transmission.

Material	Value K	°C
Concrete	4,40	1,1
Brick macizo	2,29	1,6
Cellular concrete	1,398	4,3
Cork	0,353	17
Foam of poliestireno	0,315	19
Plates of mineral wool	0,315	19

The adhesive.

This material exerts a double function. On the one hand, it serves to fix the insulating plates to the wall, and by the another, reestablishes the planeidad of the support. The adhesive are used to to be composed of dry mortar cementoso and of polymeric dusts dispersables RESIL BASIC POLYMERS. The addition of RESIL BASIC POLYMERS improves the adherencia of the adhesive and confers him elasticity. Said elasticity is extraordinarily important for the durability, since only like this can compensate light back trips between the support and the plates.

The basic coating.

This layer serves of protection against the mechanical loads and the intemperie. Generally, it is used to to be formed by a layer of mortar reinforced with a mesh of fibre glass. The crucial in these cases is that the union between the basic coating, the plate and the mesh was strong and elastic at the same time.

Mechanical resistance.

The quantity of energy of impact that a basic coating is able to absorb without deteriorating depends:

- Of the insulating material used
- Of the type of mesh of fibre of glass
- Of the elasticity of the recubrimiento base.

The elasticity of the basic coating depends, to his time, of the quantity and of the type of resin that contains the polymeric dust dispersable used. The mortars modified with the polymeric dusts dispersables RESIL BASIC POLYMERS possess the adherencia and the necessary elasticity to guarantee the maximum mechanical resistance of the system.

The finishing.

The basic coatings can paint, revoke and even decorate with revestimientos ceramic. That is to say, the design of the finishing is entirely free.

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SIMPLY EFFECTIVE: EASY And DURABLE PLACING

Polivalencia Excellent.

In the majority of the cases, the systems of thermal isolation by the outside are the best option since they install easily without requiring complicated additional measures. The mampostería revoked and without revoking, the concrete, the wood and some wooden materials are all equally ideal supports.

Rehabilitation and new edificación.

The systems of thermal isolation by the outside employ so much in ancient buildings as in the ones of new edificación. In the rehabilitation, these systems constitute an only and simple form to prepare the buildings for the future.

Procedure: only four steps.

1. Apply the adhesive to the placastermoaislantes.
2. Plant to tope the plates on the mampostería ancient.
3. Once toughened the adhesive, apply the basic coating and plant the mesh of fibre of glass.
4. Finally, revestir the façade with a coating of finishing: I revoke mineral or of synthetic resin, painting, revoke of silicone or to the silicate, or revestimiento ceramic.

TESTED And TESTED: TO CONVERT THE WELFARE IN NORMA

The systems of thermal isolation by the outside are used to to be subjects to the rules and the procedures of approval of several countries. We put to his disposal all our experience. Our team of experts works closely with his customers to improve continuously the range of polymeric dusts dispersables RESIL BASIC POLYMERS and satisfy the most diverse requirements.

The accredited Guides for the document of technical suitability European for systems composed of isolation with layers of revoke (ETAG 004) regulate the methods of essay for the distinct components of system as, for example, plates termoaislantes, fabrics, adhesive, basic coatings and of finishing. The properties of greater importance are the resistance to the traction of the adhesive, the resistance to the impact of basic coating (deformabilidad) and the repelencia to the water (hydrophobia). All these characteristics influence on the quality of the system and can adjust to the specific needs using the polymeric dusts dispersables RESIL BASIC POLYMERS.

Greater resistance to the traction of the adhesive.

The polymeric dusts dispersables RESIL BASIC POLYMERS increase the resistance to the traction of the adhesive and, of this form, the durability and the resistance of all the system. A sufficient modification makes possible that the resistance to the traction of the adhesive and of the basic coating are upper to the own hardness of the insulating plate, even after having been subjected during decades to the action of the heat, the rain and the frosts.

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Greater resistance to the impact of the basic coating.

The basic coating protects the plates against the intemperie and confers them mechanical resistance. To fulfil this double function, the mass of reinforcement has to be elastic. Said elasticity obtains using the polymeric dusts dispersables RESIL BASIC POLYMERS. This property has remained showed by the essay of impact with ball: the resistance of the basic coating increases quickly when increasing the content of RESIL BASIC POLYMERS in the mortar.

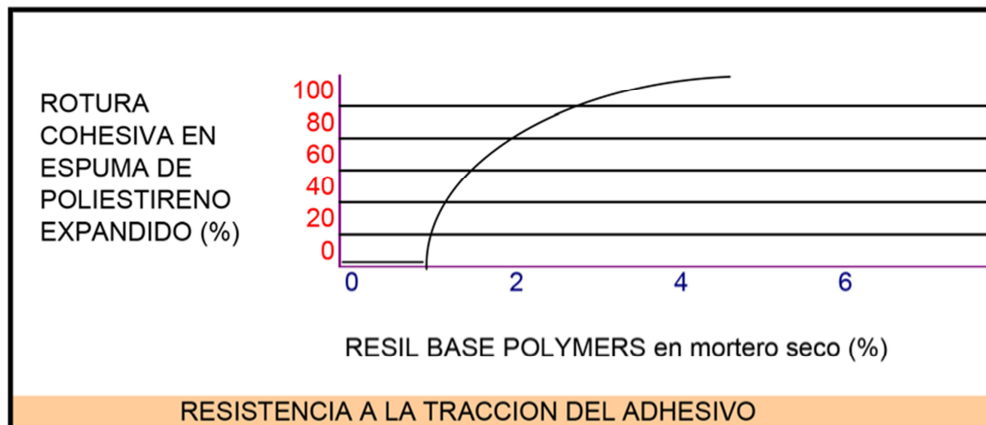


THE TIME HAPPENS To SECOND PLANE

Mayor hidrorrepelencia without hidrofugantes additional.

The systems SATE are continuously exposed to the intemperie. The durability of the group depends, especially, of the degree of humidity. To protect of form adapted so much the system like the underlying materials is necessary that the basic coating was hidrófobo. In some cases, resorts to hidrofugantes of the type of the metallic soaps. With the polymeric dusts dispersables RESIL BASIC POLYMERS can do without other hidrofugantes. The polymeric dusts dispersables RESIL BASIC POLYMERS H are hidrófobos and confer to the excellent mortars properties of repelencia to thewater.

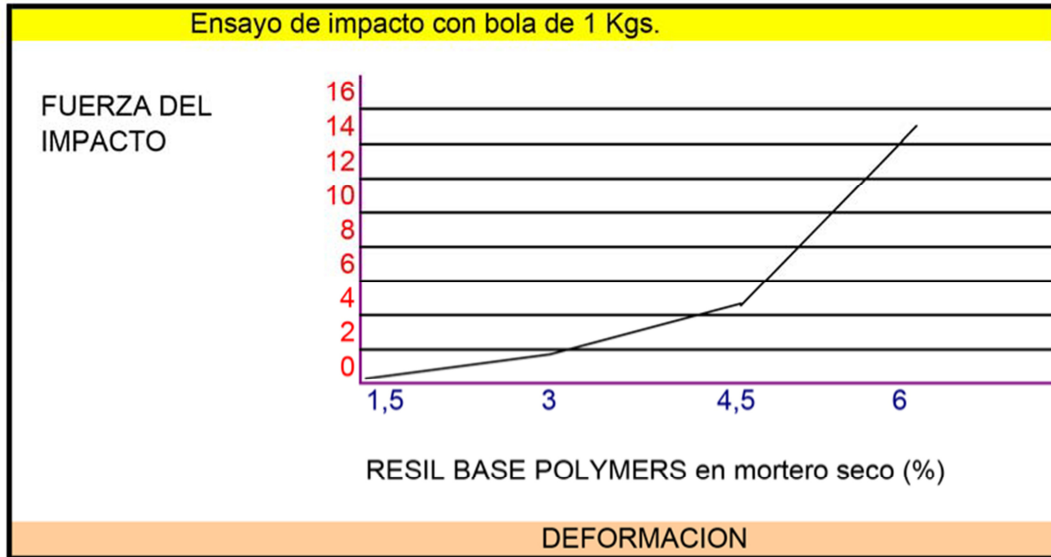
GREATER RESISTANCE To THE TRACTION.



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Resistance to the traction of the adhesive in a plate of poliestireno after a humid aging (12 days to climatic conditions estándares, 2 days of immersion in water) and a content of cement of the 20 %

GREATER RESISTANCE To THE IMPACT OF THE BASIC COATING



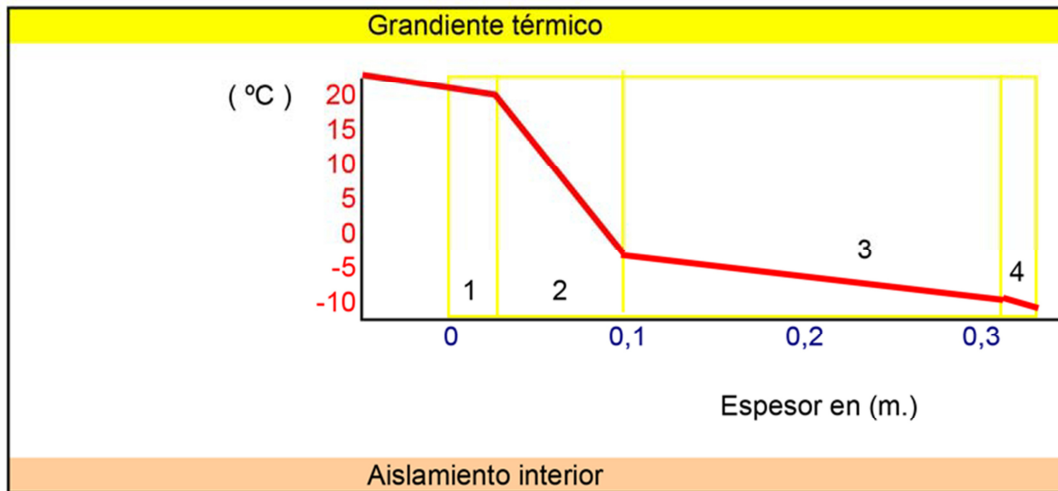
MAYOR HIDROREPELENCIA WITHOUT HIDROFUGANTES ADDITIONAL



Absorption of water of a basic coating with, and another without polymeric dusts dispersables hidrófobos, probeta of cellular concrete

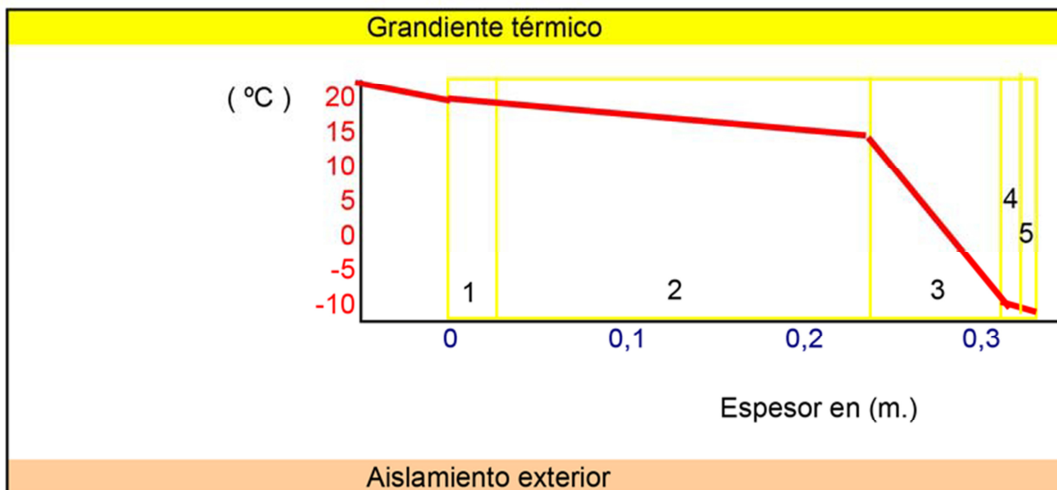
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EXTERNAL CLOSING WITH TRASDOSADO INNER



- 1.- 15 mm. I revoke inner
- 2.- 80 mm. Plate of foam of poliestireno expanded.
- 3.- 240 mm. Mampostería Ofbrick.
- 4.- 20 mm. I revoke external

EXTERNAL CLOSING WITH TRASDOSADO EXTERNAL



- 1.- 15 mm. I revoke inner
- 2.- 240 mm. Mampostería Of brick.
- 3.- 80 mm. Plate of foam of poliestireno expanded.
- 4.- 3 mm basic Coating with mesh of fibrade glass. 5.- 4 mm. I revoke external