# GYPSUM.

# RESIN-PLASTER Technical data sheet

Revision: 24/04/2020 Manufacturer: GYPSUM s.r.l.

#### The material

Product realized from the selection of alpha hemihydrate plaster, which is suitable for the production of GRG elements, reinforced in the production phase with glass fibre, and can be moulded into any shape and size.

Resin-plaster has a class A1 fire resistance.

#### The product

Resin-plaster is a plaster with a high technological content, suitable for the production of artefacts with characteristics of hardness, resistance to bending, abrasion, water and temperature that cannot be found in any natural plaster. The presence of the polymer, carefully selected and dosed, as well as the quality and quantity of the glass fibre reinforcement, increases the performance of the plaster, making it possible to create products of all shapes and sizes, starting from very small thicknesses that are extraordinarily resistant and flexible.

Resin-plaster is particularly suitable for the manufacture of non-structural decorative elements for interiors such as fireplaces, door decorations, boiserie, skirting boards, columns, etc., but it is also suitable for decorative elements for covered exteriors, for the manufacture of lamps and furnishing objects, or for scenographies.

The products are made by mould casting and the fineness of the material guarantees the faithful reproduction of every detail.

Resin-plaster complies with the European standard EN 13279-1.

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The reinforcement is made of a special glass fibre that guarantees high performances at very thin thicknesses: we can already get extraordinary results with 4/5 millimetres of thickness.

The reinforcement can be implemented with the usual systems used for other types of plaster and are:

- glass fibre: this is a particular fibre that is drowned in the product during processing creating very resistant products. This framework, without the addition of any other system, is sufficient to guarantee that the finished products offer excellent resistance.
- steel rods: they can be placed inside the casting, in addition to the glass fibre, where necessary, suitably positioned and in the necessary quantity according to our experience. In addition to strengthening the product, the steel rods help to suspend it during the installation phase; they are usually inserted in prefabricated elements such as false ceilings, domes, columns, large-sized products, etc.
- wood: in addition to the reinforcements listed above, if necessary and on the basis of our experience, a wooden reinforcement can be arranged that strengthens the product, allowing its transport and handling in total safety.
- galvanized tubular structures: in addition to the reinforcements listed above, it is possible to set the artefact to a metal structure made with galvanized tubulars structures diam. 20 mm which are shaped by hand. This type of reinforcement not only strengthens the structure, but it also guarantees its geometrical tightness, even in the case of large-sized elements, helping transport, handling and installation.
- Metal carpentry: if required by the project, or on the basis of our experience, during the production phase it is possible to set the artefact to a suitably dimensioned galvanized tubular metal carpentry, which allows the manufactured product to be fixed to metal structures prepared on site. This is the ideal system for the installation of artefacts, even of large dimensions, in shipyards, construction sites, for scenography, etc.

The production cycle requires a forced and controlled drying process of the manufactured articles in a special hot air dryer (about 50°C), in order to guarantee achievement of the final mechanical performances in a very short time.

### The project

GYPSUM works alongside architects and designers to give the best technical support during the design phase, assessing the customer's request to provide the right construction suggestions of the artefacts, the possibility of splitting it into parts and the correct implementation.

Our technical staff will support the designer through 2D and/or 3D CAD drawings, as well as through physical samples.

Whether it is a single piece or a series production, we are able to guarantee a constant and high quality standard of the product.

## **Technical features**

The materials used during production are the result of lengthy research. For this reason every raw material and every additive are carefully chosen and purchased only from suppliers who can guarantee to supply consistent-quality materials.

Its technical features depend on the basic plaster used: the addition with the polymer during the mixing phase and the type of reinforcement substantially increase the technical characteristics of the base material.

### Use instructions

The products should be kept in a covered place, should be handled with care and should be laid shortly after being removed from the packaging.

A site check is necessary to verify that the conditions in place are suitable for the product's use, also taking into consideration the sector tolerances that affect production.

### Note

We are at your disposal for any further information. <u>GYPSUM reserves the right to modify the content of this sheet without notice.</u>