

GYPSUM.

CEMENTO + DOLUFLEX®

Technical data sheet

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Cementoskin®, **Cementobasic®**, **Cementolight®** licensee: GYPSUM s.r.l.

Manufacturer: GYPSUM s.r.l.

The material

Laminated artefact with Cementoskin®, Cementobasic®, Cementolight® with Doluflex® aluminium panel, glued with structural glue.

Cementolight® has a class A1 fire resistance.

The product

This is a manufacturing technology that involves the production of products made of Cementoskin®, Cementobasic® or Cementolight®, which are then permanently glued to Doluflex® aluminium panels using structural glue. The product thus obtained has extraordinary technical and mechanical characteristics; in fact, it is possible to make large-sized sheets with limited thickness, up to 3000x1000 mm, with a minimum thickness of 18 mm.

The system has been specifically designed and perfected for the production of artefacts intended for architecture and industrial design. It is therefore suitable for home and contract market, for indoor and outdoor applications, to create panels for the façade cladding, non-structural architectural elements, tables, shelves, benches, furnishing accessories, kitchen tops, objects, etc..

The cement

To make products, Cementoskin®, Cementobasic® or Cementolight® are poured into moulds to form elements of any shape and size. The cement can be colored with iron

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oxide paste and the surface can either be smooth or have a slightly silky texture; the appearance of the final product is material and full-bodied.

During the production phase, a surface impregnating treatment cycle is carried out on the exposed face, which makes the cement resistant to dirt and stains, abrasion, freeze/thaw cycles, salt, chemical attack (even of acid substances). Please consult the specific technical data sheet of the cement for more details.

The processing phase involves accurate dosing of raw materials, additives and colouring substances, guaranteed by precision equipment; however, the colouring presents a pleasant dyschromia between products of the same colour: this is a peculiar characteristic of cement as a natural material.

The fineness of the material guarantees a faithful reproduction of every detail, making it possible to create any object.

The material can be reinforced during the production phase with fibreglass mesh and/or special steel fibres. The choice regarding the type of cement to be used, the thickness of the final product, the actual need for reinforcement and which type to use is based on our experience, depending on the type of product in terms of shape, size and intended use.

Iron reinforcement is strictly avoided to prevent any problems associated with its use.

The Doluflex®

Doluflex® is an aluminium sandwich panel made of a corrugated sheet core glued (polyurethane glue) between two flat sheets. The nominal thickness of the corrugated sheet varies from 0.25 to 1 mm, while the thickness of the flat sheets varies from 0.25 to 2 mm.

The panels are available in the following nominal thicknesses: 4 - 6 - 8 - 10 - 12 - 13 - 15 - 18 - 20 - 23 - 25 - 28 - 42 - 45 mm. The standard production formats of Doluflex®

Panel are: 1020 - 1250 - 1500 mm in width, variable in length from 2000 to 5000 mm.

The panels are cut and shaped with common CNC systems to achieve any desired formats.

It is possible to determine the layout of the internal metal sheet: either parallel to the width (standard) or to the length. The structural performance of the panel is higher in the direction of the internal corrugated material.

The panel can be fitted with M6 or M8 threaded bushings, positioned with CNC system and glued to the aluminium with a special epoxy resin which can support breakout loads over 500 kg. These bushings can be used as a suspension system for cladding panels on a metal structure.

On the Doluflex® panel it is also possible to carry out edgebanding, calendering, shaping, hinge insertion, locks, etc. The surface can be unfinished, in anodized aluminium, painted, mirrored, etc. Consult our technical office for more details.

The thickness of the corrugated sheet core and flat sheets, the thickness of the panel, the orientation of the internal corrugated sheet, the possible insertion of bushings and any other technical characteristics of Doluflex® are decided according to our experience, depending on the type of product in terms of shape, size and intended use.

The project

GYP SUM 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, its possible splitting 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.

The cement: technical data sheets

Cementoskin®, Cementobasic® and Cementolight® have dedicated technical data sheets. Please consult them for any technical details of the cement.

Doluflex®

Corrugated sheet core	thickness 0.25 - 1 mm
Flat sheets	thickness 0.25 - 2 mm
Glue quantities	from 65 to 200 g/m ² (the gluing process is currently being certified according to DIN 6701)
Type of glue	bicomponent polyurethane glue
Panel thickness	from 4 to 45 mm
Panel density	from 150 to 1600 kg/m ³
Operating temperature	-10/70°C
Reaction to fire	Class "0" incombustible material in compliance with italian tests IMO FTP and Direttiva Solas.

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A1 class in compliance with EN13501.
UNI CEI EN 45545-2:2013 (railway applications).
Marine equipment MED B+D certification

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.

GYPSUM s.r.l. reserves the right to modify the content of this sheet at any time and without notice.