

GYPSUM.

CEMENTOLIGHT®

Technical data sheet

Revision: 24/04/2020

Licensee: GYPSUM s.r.l.

Manufacturer: GYPSUM s.r.l.

The material

Lightened product, made with a mixture of cement, selected lightening charges and specific additives, reinforced during the production phase with glass fibre net and/or special steel fibres, which can be moulded into any shape.

Cementolight® has a class A1 fire resistance.

The product

Cementolight® is a cement specially created for the production of large-format and low thickness panels (15-18 mm) for facade cladding, as well as for the production of non-structural architectural elements. It is extremely light, up to one third lighter than traditional cement; this characteristic allows the products to be laid easily and seamlessly when compared to concrete, greatly reducing the structural load on buildings. Although it is very light, the material is very resistant and in the Cementolight® 1000 version it has mechanical characteristics similar to building cement.

Cementolight® is also particularly suitable for the production of elements for the design industry such as lamps, benches, artificial stones, vases, objects, etc., and is therefore suitable for the home and contract market, as well as for indoor and outdoor applications. It is worked by pouring it into molds to form elements of any shape.

The material can be coloured with iron oxide paste, the surface can be smooth or have a light silky texture, and the appearance of the final product is tactile and full-bodied.

During the production phase, a surface impregnating treatment cycle is carried out to make the cement resistant to dirt, frost/thaw cycles, salt and chemical attack (even by acid substances).

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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 the 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 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 for 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.

CEMENTOLIGHT 825

Apparent density	UNI EN 14617-1	824.2 kg/mc
Water absorption	UNI EN 14617-1	11.22% (after 528 hours)
Flexural strength (bending)	UNI EN 14617-2	$R_{tf}=5.14$ N/mm ² (thickness 30 mm)
Compressive strength	UNI EN 14617-15	15.91 N/mm ²
Impact resistance	UNI EN 14617-9	$W = 7.231$ J (thickness 40 mm)
Freeze/thaw resistance	UNI EN 14617-5	$KM_{f25} = 105$ (after 25 cycles)
Linear thermal expansion	UNI EN 10545-8	6.44 [10 ⁻⁶ /°C]

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Resistance to aging by salt mist	UNI EN ISO 14147	intact (after 60 cycles)
CEMENTOLIGHT 1000		
Apparent density	UNI EN 14617-1	1012.5 kg/mc
Water absorption	UNI EN 14617-1	10.11% (after 528 hours)
Flexural strength (bending)	UNI EN 14617-2	$R_{tf}=3.74$ N/mm ² (thickness 30 mm)
Compressive strength	UNI EN 14617-15	25.80 N/mm ²
Impact resistance	UNI EN 14617-9	W = 8.458 J (thickness 40 mm)
Freeze/thaw resistance	UNI EN 14617-5	$KM_{f25} = 116$ (after 25 cycles)
Linear thermal expansion	UNI EN 10545-8	10.04 [10 ⁻⁶ /°C]
Resistance to aging by salt mist	UNI EN ISO 14147	intact (after 60 cycles)

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 reserves the right to modify the content of this sheet without notice.