# GYPSUM.

# CEMENTOBASIC® Technical data sheet

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

## The material

High performance product, made with a mixture of cement, selected aggregates and specific additives. It can be reinforced during the production phase with glass fibre mesh and/or special steel fibres and it can be moulded into any shape. Cementoskin<sup>®</sup> has a class A1 fire resistance.

## The product

Cementobasic<sup>®</sup> is a high performance washable cement, colored with iron oxide paste, with which it is possible to produce products with a smooth surface. Cementoskin<sup>®</sup> is a material for architecture and design, whose chemical composition, together with the surface treatments applied during production, makes the cement resistant to dirt and is washable even in the case of stains generated by liquids (water, coffee, oil, wine, Coca Cola, lemon, etc.). Its characteristics make this material particularly tough, almost waterproof, resistant to abrasion, freeze/thaw cycles, saltiness, and chemical attacks (including acid substances).

Cementoskin<sup>®</sup> is suitable for the home and contract market, for indoor and outdoor applications, as well as for architecture and industrial design. It is worked by pouring it into molds to form elements of any shape.

It is particularly suitable for floor and wall coverings, sinks, shower trays, bathtubs, kitchen tops, lamps, tables, benches, vases, objects, etc.

The processing phase involves accurate dosing of raw materials, additives and coloring substances, guaranteed by precision equipment; however, the coloring shows a pleasant

dyschromia between products of the same color: this is a peculiar characteristic of the cement as a natural material.

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

The material can be reinforced during the production phase with a glass fibre net and/or special steel fibres. The choice regarding the thickness of the final product (minimum 10 mm), the actual need for reinforcement and which type to use is based on our experience, as a function of the artefacts' shape, size and destination of 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 Autocad drawings and/or 3D 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.

Apparent density	UNI EN 14617-1	1958 kg/mc
Water absorption	UNI EN 14617-1	2.77% (after 360 hours)
Flexural strength (bending)	UNI EN 14617-2	R <sub>tf</sub> =8.64 N/mm2 (thickness 16 mm)
Abrasion resistance	UNI EN 14617-4	39.5 mm
Impact resistance	UNI EN 14617-9	W = 1.716  J (thickness 16 mm)
Freeze/thaw resistance	UNI EN 14617-5	$KM_{f25} = 111$ (after 25 cycles)
Thermal shock resistance	UNI EN 14617-6	$\Delta m\% = 0\% \Delta R_{f,20\%} = -7.6\%^*$
Slip resistance	UNI EN 14231	dry SRV=105 / wet SRV=40
Coefficient of dynamic friction	B.C.R.A.	dry $\mu$ 0.37 / wet $\mu$ 0.70

Slip resistance	DIN 51130	$12.2^{\circ} = R10$
Linear thermal expansion	UNI EN 10545-8	12.8 [10 <sup>-6</sup> /°C]
Chemical resistance	UNI EN 14617-10	resistant
Resistance to stains	UNI EN ISO 10545-14	all stains = $5 / \text{iodine} = 1$
Resistance to liquids other than water	UNI EN ISO 2812-1	resistant
Resistance to aging by salt mist	UNI EN ISO 14147	intact (after 60 cycles)

\*(the negative sign indicates an increase in performance)

### 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.

# GYPSUM.

# CEMENTOSKIN® Technical data sheet

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

## The material

High performance product, made with a mixture of cement, selected aggregates and specific additives. It can be reinforced during the production phase, with glass fibre net and/or special steel fibres and can be moulded into any shape. Cementoskin<sup>®</sup> has a class A1 fire resistance.

### The product

Cementoskin<sup>®</sup> is a new and advanced high-performance washable cement, colored with iron oxide paste with which we can make products with a delicate appearance, whose softness is revealed by a surface that offers a visual and tactile sensation similar to velvet. Color joins cement in an organic and gentle relationship, removing the traditional perception of a raw material and giving it a precious dimension.

Cementoskin<sup>®</sup> is a material for architecture and design, whose chemical composition, together with the surface treatments applied during production, makes the cement resistant to dirt and is washable even in the case of stains generated by liquids (water, coffee, oil, wine, Coca Cola, lemon, etc.). Its characteristics make this material particularly tough, almost waterproof, resistant to abrasion, freeze/thaw cycles, saltiness, and chemical attacks (including acid substances).

Cementoskin<sup>®</sup> is suitable for the home and contract market, for indoor and outdoor applications, as well as for architecture and industrial design. It is worked by pouring it into molds to form elements of any shape.

It is particularly suitable for floor and wall coverings, sinks, shower trays, bathtubs, kitchen tops, lamps, tables, benches, vases, objects, etc.

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

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

The material can be reinforced during the production phase with a glass fibre net and/or special steel fibres. The choice regarding the thickness of the final product (minimum 10 mm), the actual need for reinforcement and which type to use is based on our experience, as a function of the artefacts' shape, size and destination of 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.

Apparent density	UNI EN 14617-1	1844 kg/mc
Water absorption	UNI EN 14617-1	1.03% (after 192 hours)
Flexural strength (bending)	UNI EN 14617-2	R <sub>tf</sub> =8.64 N/mm2 (thickness 16 mm)
Abrasion resistance	UNI EN 14617-4	26 mm
Impact resistance	UNI EN 14617-9	W = 1.716  J (thickness 16 mm)
Freeze/thaw resistance	UNI EN 14617-5	$KM_{f25} = 111$ (after 25 cycles)

Thermal shock resistance	UNI EN 14617-6	$\Delta m\% = 0\% \Delta R_{f,20\%} = -7.6\%^*$
Slip resistance	UNI EN 14231	dry SRV=85 / wet SRV=55
Coefficient of dynamic friction	B.C.R.A.	dry $\mu$ 0.74 / wet $\mu$ 0.80
Slip resistance	DIN 51130	$9.6^{\circ} = R9$
Linear thermal expansion	UNI EN 10545-8	12.8 [10 <sup>-6</sup> /°C]
Chemical resistance	UNI EN 14617-10	resistant
Resistance to stains	UNI EN ISO 10545-14	all stains = $5 / \text{iodine} = 1$
Resistance to liquids other than water	UNI EN ISO 2812-1	resistant
Resistance to aging by salt mist	UNI EN ISO 14147	intact (after 60 cycles)

\*(the negative sign indicates an increase in performance)

### 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.

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