

Crystacal Lamina

Product Description

Crystacal Lamina is a formulated hemihydrate plaster ($\text{CaSO}_4 \cdot \frac{1}{2} \text{H}_2\text{O}$) produced from naturally occurring gypsum mineral. It is a high performance, polymer enhanced plaster, providing a very smooth, high impact resistant surface finish.

Applications

Used in the manufacture of :

- Fibrous plasterwork.
- Glass reinforced gypsum structures.
- General casting of decorative plasterwork.

This product offers high mechanical strength, allowing much thinner sections to be cast in fibre reinforced applications.

Technical Data

The technical data outlined represents typical figures only. For further details, please contact Formula directly.

Plaster to water ratio, 2.86:1, 100/35
by weight 2.86kg/litre, 3lb 9oz /pint

For gel coats: 2.94:1 to 3.23:1

Initial Vicat setting time
@ pwr of 2.86:1 25 minutes

Maximum working time
@ pwr of 2.86:1 15 minutes

Spread diameter
@ pwr of 2.86:1 7.8cm

Compressive strength, dry
@ pwr of 2.86:1 41MN/m²

Compressive strength,
2 hours after setting
@ pwr of 2.86:1 15MN/m²

Maximum linear
expansion, 2 hours after setting
@ pwr of 2.86:1 0.45%

Transverse strength, dry
@ pwr of 2.86:1 14MN/m²

Water uptake (Total Immersion)
@ pwr of 2.86:1
after 6hrs 7.6%
after 24hrs 7.6%

Friability, @ pwr of 2.86:1
after 10 mins 0.84%
after 20 mins 1.17%

Unless otherwise stated, Formula's standard test methods apply. To obtain a copy of the test methods used, please contact Formula directly.

The plaster to water ratios quoted are those used in Formula's standard test methods and are not necessarily those used in practice. The precise consistency to use will need to be adjusted to suit the individual application. Changes to plaster to water ratio will influence product performance particularly setting time and strength

Plaster based products are not recommended for conditions where they are likely to be located externally or in any way subjected to weathering or excessive dampness.

Mixing

For decorative plasterwork, this product should be mixed at a ratio of 2.86kg /litre. For fibre reinforced gypsum (GRG) , when preparing the first, or gel, coat the proportion of plaster may be increased to 2.94kg to 3.23kg /litre, to facilitate even coverage on vertical surfaces. To minimise air entrainment, it is recommended that the plaster is slowly added to the water whilst mixing. When all the plaster has been added, allow the mix to soak for one minute then slowly mix again to achieve a smooth consistency. To further reduce air entrainment, this second mixing can be carried out under vacuum.

Fire Protection

When samples of Crystacal Lamina were cast and then tested in accordance with BS476 : Part 6 : 1989, the panels gave a fire propagation index of $I = 0.13$. When tested in accordance with BS476 : Part 7 : 1997, the results showed that the panel had a CLASS 1 (ONE) surface spread of flame classification on the cast face. Copies of the full test report are available on request.

Limitations

When stored under dry conditions, this product will have a shelf life of six months from the date of manufacture that is displayed on each sack.

Absorption of moisture can result in changes to physical properties including a reduction in the set strength of plasters and also a lengthening of setting time. To help protect the product during use, open or part used bags should be carefully folded and closed.

Each bag is date stamped and stocks should be rotated so that the oldest material is used first.

For further technical information or advice on any matter relating to a BPB Formula product, please contact Formula directly.

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Supply Details

Unless otherwise stated, BPB Formula industrial plasters and gypsum minerals are available in 25Kg, 35Kg, 40Kg or 50Kg paper sacks depending upon manufacturing location. Other pack options such as IBC (bulk bags) and bulk product in road tanker may also be available. The company contracts solely upon its conditions of sale, copies of which are available on request. Advice as to merchant outlets for industrial products may be obtained by contacting the sales offices listed.

Health and Safety

Health and Safety information sheets are available for all BPB Formula Industrial Plasters and Gypsum Minerals and can be obtained by contacting the sales offices listed.

General health and safety information is printed on each sack.

No liability is accepted for injury to any person or loss or damage to property by improper use of the product. All information has been provided in good faith but the information may be subject to change.

Any instruction manuals or other literature provided with the product or in respect of the product at any time thereafter are correct at the time of supply but may be updated at a later date. Should the user of the product at any time be unsure about the contents or currency of any such information manuals or other literature then contact should be made with BPB Formula.

Information

For further information including technical service and health & safety enquiries please contact

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