

# Duropress

## Product Description

Duropress 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 pale green in colour.

## Applications

This product is used in the roof tile industry to produce high performance moulds for the production of clay roof tiles, by the RAM Press Process.

## Technical Data

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

Vicat ring spread @ pwr, by weight, of 2.86:1, 100/35	20 to 25 cm
Knife setting time @ pwr of 2.86:1	21 to 26 mins
Data at pwr of 2.86:1	
Compressive strength, dry	31.5 MN/m <sup>2</sup>
Flexural strength, dry	10.1 MN/m <sup>2</sup>
Brinell hardness, dry	106 MN/m <sup>2</sup>
Pore volume	24.0 %
Sieve Analysis:	
Sieve	% weight retained
+ 200 microns	max. 0.04 %

This plaster can be modified to suit the specific requirements of the customer.

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.

The recommended plaster to water ratio is between 2.7:1 and 2.86:1, with a mixing time of approx. 2 to 4 minutes, depending on batch size.

### Procedure:

The temperatures of both plaster and water should be as close as possible during processing (within the range 15 – 20°C), since plaster and water temperatures affect setting behaviour.

Sprinkle the plaster evenly over the entire surface of the water and allow approx. 2 minutes to soak.

Depending on the speed of the mixer and the quantity, the recommended mixing time is 6 – 12 minutes. To avoid air entrainment, it is advisable to mix under vacuum. The temperature of the mixture should be taken at the end of mixing.

After pouring, a thermometer is placed in the mould. Once the temperature increases by 7 or 8°C, the purging process can be started. The pressure is increased by  $\frac{1}{2}$  bar every half a minute. After reaching 5 bar, purge until the mould is dry, for at least half an hour. The purging process can be stopped once dry areas can be seen on the surface. The mould should be allowed to harden for at least 12 hours.

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.

# Duopress

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.

## 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.

## 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.

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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