DENTAL PLASTER

Dental and personal care

PRODUCT DESCRIPTION

Dental Plaster is a formulated hemihydrate plaster (CaSO4.½H2O) produced from naturally occurring gypsum mineral. It is off-white in colour. It is used in dentistry during the flasking operation in the production of dentures. It can be mixed with dental stone plasters (Dentstone KD) for the production of model bases and also models for bleaching trays and working models for dentures.

PRODUCT BENEFITS

+ **Can be mixed with Dentstone KD**

APPLICATIONS

Dental

TECHNICAL INFORMATION

Plaster to Water Ratio	
Plaster to Water Ratio (by weight)	1.67:1
Water to plaster ratio (by weight)	60%
Plaster to water mix ratio (by weight)	100/60
Chemical Properties	
Chemical Name	Calcium Sulphate Hemihydrate
Chemical Composition	CaSO4.½H2O
Colour	Off-white
Setting Parameters	
Initial setting time (minutes)	9
Final setting time (minutes)	12
Linear Expansion (%)	0.28
Mechanical Properties	
Brinell Hardness (MPa)	40
Wet Compressive strength (Mpa)	10
Physical Properties	
Particle Size (% weight retained)	5% at 150 µm 18% at 90 µm 33% at 63 µm 50% at 32 µm
Loose bulk density (kg/m³)	900
Compacted bulk density (kg/m3)	1300

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

INSTRUCTIONS FOR USE

Mixing utensils should always be clean and free of set plaster. Use clean water only. For consistent results, attention must be given to the correct proportioning and mixing of the plaster and water.Add the weighed quantity of plaster slowly into the measured volume of water and allow to soak from 30 seconds to 60 seconds. Stir vigorously with a spatula for 30 seconds to 60 seconds to obtain a uniform mix. If mechanical mixing is used with or without vacuum, the mixing time will be much less than that for hand mixing. The time will be dependent on the type of mixer paddle and speed.To obtain very fine detail and to exclude air bubbles, the plaster should be vibrated into the impression. The fluidity of the mix can be increased by increasing the proportion of water, however this will result in reduced strength and hardness.Do not mix fresh plaster with that which has been mixed for some time previously.

PACKAGING AND SHELF LIFE

	Packaging Available	Shelf Life (Month)
Bag	25 kg	6

When stored under dry conditions and in its original packaging, the product will have a specified shelf life that commences from the date of manufacture that is displayed on each sack. Shelf life depends on the packaging type. For those products where a defined ‘best before’ date is applicable, BBE (Best Before End) followed by the date will be displayed on each sack.

STORAGE

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.

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.

Gypsum minerals can be affected by absorption of moisture and may change physical properties.

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.

ENVIRONMENT, HEALTH AND SAFETY

Material Safety Data Sheets of Saint-Gobain Formula plasters and gypsum minerals are available for all products and may be obtained directly on our website in the product and documentation sections. No liability is accepted by Saint-Gobain Formula for injury to any person or loss or damage to property by improper use of the product.

NOTIFICATION

The plaster to water ratios quoted are those used in Saint-Gobain 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.
Unless otherwise stated, Saint-Gobain Formula’s standard test methods apply. To obtain a copy of the test method, please contact Saint-Gobain Formula directly.
This literature cancels and replaces any previous document. All information given is provided in good faith and may be subject to change.
It’s advisable to contact Saint-Gobain Formula in case of any doubt arising from the content of such information.

CONTACT

For any information, please visit our website

www.saintgobainformula.com

Sales contact

Documentation

Technical information

Global information