

# KERADUR 4000P

Ceramics

## PRODUCT DESCRIPTION

Keradur 4000P is a high strength formulated alpha plaster designed for Ram Press in ceramics for tableware and rooftiles mould making. Keradur 4000P is giving the best compromise between a high strength mould for a long mould life and a good permeability to ensure production efficiency.

## PRODUCT BENEFITS

- + Designed for Ram Press
- + High strength
- + Controlled expansion

## APPLICATIONS

Tableware, Rooftile

## TECHNICAL INFORMATION

Plaster to Water Ratio	
Plaster to Water Ratio (by weight)	3.00:1
Water to plaster ratio (by weight)	33%
Plaster to water mix ratio (by weight)	100/33
Chemical Properties	
Chemical Name	Calcium sulphate hemihydrate
Chemical Composition	CaSO <sub>4</sub> ·1/2H <sub>2</sub> O
Setting Parameters	
Vicat Ring Fluidity (cm)	20-26
Initial setting time (minutes)	19-26
Linear Expansion (%)	0.15
Mechanical Properties	
Flexural Strength (MPa)	10
Brinell Hardness (MPa)	144
Dry compressive strength (Mpa)	43.4
Physical Properties	
Pore Volume (%)	23
Particle Size (% weight retained)	0.04% at 200 µm
Loose bulk density (kg/m <sup>3</sup> )	1200

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

## INSTRUCTIONS FOR USE

Preparation of the matrix: The preparation of the matrix is key. Air Network must be well fixed to the frame. The space between each air tubes should be constant (~ 2 cm between each). The air network should be place at ~ 2cm of the working surface of the mould. Plaster Preparation The temperature of both the plaster and water should be as close as possible during processing, within the range 15 - 20°C, as plaster and water temperatures affect setting behaviour. Sprinkle evenly over the entire surface of the water and allow to soak for approx. 2 minutes. Depending on the intensity of the mixer and the quantity, the recommended mixing time is 6 - 12 minutes. Mixing can start since the beginning of the soaking. To avoid air entrainment, it is advisable to mix under vacuum. The temperature of the mix should be taken at the end of the mixing. The best is to control the pressure increase according the temperature increase. After pouring, a thermometer is placed in the mould. Once the temperature has increased by 6 to 8°C, the

purging process can be started. The pressure should be increased by 0.5 bar from every half a minute to every minutes. After reaching 5 bar, purge until the mould is dry, for minimum half an hour. The purging process can be stopped when dry areas can be seen on the surface (2 hours). The mould should be allowed to harden for at least 12 hours.

## PACKAGING AND SHELF LIFE

	Packaging Available	Shelf Life (Month)
Bag	25 kg, 40 kg, 50 kg	3

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](http://www.saintgobainformula.com)*



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