



CerMag SM2

A stable Magnesia derived from seawater derived magnesia and natural Magnesite. SM-2 has been hard burned (sintered) at high temperature to ensure thermal stability.

Refractory properties are not as high as with Electrofused material but generally suitable for most metal and alloy casting techniques.

This material has been derived for Dental and Jewellery Investment formulations with closely controlled parameters of chemistry and micronisation.

Typical Particle Size Distribution

Particle size distributions can be varied at will and under close control using either techniques of Cilas Laser Particle Size Analyser 1064L and Malvern particle size analysers.

Ranges of particle size distributions available are:

d_{90} Average = ca. between 150 and 50 microns

d_{50} Average = ca. between 2 and 35 microns

This range of particle size is controlled by the type of reactivity or expansion required by the customer.

Typical Chemical Analysis

Oxide	%
SiO ₂	0,17
Al ₂ O ₃	0,10
Fe ₂ O ₃	0,10
CaO	1,00
B ₂ O ₃	0,005
MgO	98.0

Alumina levels on fine milled grades are normally higher (around 1%).

Physical Properties

Fired Colour: Off white/cream

Bulk Density

Before micronisation is between 3.45 and 3.53 gcm⁻³

Melting Point

Greater than 2700°C

Surface Area (BET)

Typically 1m²g⁻¹

Powder Bulk Density (Tapping)



Values between 2 and 2.2 gcm-3

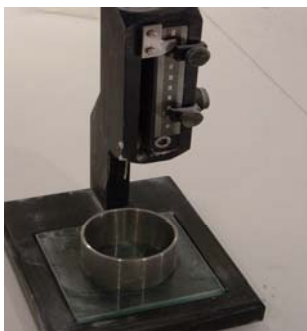
Activity

Range in reactivity defined from our CerMag SM2-SF at 0.5 minutes through to our CerMag SM2-MS at 15 minutes. All reactivities are available within this range

Expansion with CermaDent MAP

Depending upon grade of CerMag FC and CermaDent expansions in the range 0.4 to 4% can be achieved using Cermatco standard investment.

Working Times



Using a Vicat needle in a standard investment formulation can be controlled from 2 minutes to 25 minutes.

Packaging

Now available, where required, in totally heat-sealed plastic 25 sacks.

Qualities available

CerMag SM2-SF
CerMag SM2-Normal
CeMag SM2-Slow
CerMag FC120D
CerMag FC-MS

Each subject to individual customer DentSpex.



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