



SIAM CASTING POWDERS LTD.

QUALITY INVESTMENTS POWDER

OMEGA+

PRODUCT TYPE

OMEGA+ is a new investment specifically developed for the casting of high carat yellow golds and white golds. It is easily removed after casting to give the best possible surface finish.

OMEGA+ has been carefully formulated to:

- blend easily to a smooth creamy consistency.
- enable easy air elimination thus eliminating nodules on the castings.
- achieve fast, clean burn-outs.
- form a strong, permeable mould suitable for either vacuum assisted or centrifugal casting.
- give castings with smooth surfaces, sharp definition and dimensional accuracy.

Stringent quality control testing of both raw materials and the finished product, ensure that M382 produces consistently superior casting results, time after time.

CHEMICAL COMPOSITION

OMEGA+ is a gypsum-based investment having a typical

- (a) Silica content of 73%
- (b) Calcium Sulphate content of 26%
- (c) Organics content of 1%

TYPICAL DATA

<u>PROPERTY</u>	<u>UNITS</u>	<u>MAX</u>	<u>MIN</u>
Work Time	Mins	9	7½
Gloss-off Time	Mins	13½	11½
Thermal Expansion (750°C)	%	1.00	0.75
Cold Crushing Strength	MN/m ²	N/A	1.5
Silica Content	%	75.0	71.0
Calcium Sulphate Content	%	28.0	24.0

PACKAGING-STORAGE

OMEGA+ is supplied in 22.5 kg and 45 kg paper sacks or fibre drums.

They should be kept dry and used in rotation. Exposure to moisture and prolonged storage will result in deterioration.

OMEGA+ is supplied as a dry powder which when mixed with water rapidly sets as a dense, hard mass for the production of moulds for the casting of various metals.

MIX PROCEDURE

For conventional mixing use 38 parts of water to 100 parts of OMEGA+ for vacuum mixing use 38 parts of water to 100 parts of OMEGA+

For conventional mixing;

1. Determine the weight of powder and the volume of water.
2. Weigh out the powder and measure its temperature.
3. Adjust the water temperature so as to give a slurry temperature of 20°C.
4. Measure the required volume of water into a clean mixing bowl.
5. Add the powder to the water.
6. Mix by hand for 30 seconds, to break up any lumps.
7. Mix by machine for a further 3 minutes.
8. Vacuum the investment in the bowl (not more than 2 minutes).
9. Pour the investment slowly down the side of the flask until the wax patterns are covered.
10. Vacuum the investment in the flask (not more than 2 minutes).
11. Let the flask stand undisturbed (at least 90 minutes is best).
12. Remove sprue base and collar.
13. Place flask in furnace and follow an appropriate burn-out cycle.

For vacuum mixing;

1. Determine the weight of powder and the volume of water.
2. Weigh out the powder and measure its temperature.
3. Adjust the water temperature so as to give a slurry temperature of 20°C.
4. Measure the required volume of water into the mixer.
5. Add the powder to the water.
6. Mix under vacuum for between 4 and 5 minutes depending on the number of flasks to be poured.
7. Pour the flasks under vacuum making sure the last flask is completed by 8 minutes total mixing time.
8. Let the flask stand undisturbed (at least 90 minutes is best).
9. Place flask in furnace and follow an appropriate burn-out cycle.

CAUTION: Cleanliness is essential for consistent results.
Exposure to moisture and prolonged storage will result in deterioration.

HEALTH AND SAFETY

CAUTION: OMEGA+ CONTAINS SILICA AND IS HARMFUL BY INHALATION
BECAUSE OF DANGER OF CUMULATIVE EFFECTS PLEASE
REFER TO THE MSDS.

DO NOT BREATHE DUST!!!!!!