

MCP™ 15 METAL CASTING PLASTER

Ideal for Low Melting Temperature, Non-Ferrous Alloys (Especially Aluminum)

Consistency

Due to high quality standards held on each lot, MCP 15 metal casting plaster maintains highly uniform properties, assuring reproducible and predictable results lot to lot, part to part, time after time.

Blended for High Performance

Specifically blended for plaster mold casting, MCP 15 metal casting plaster is not a generic plaster, but rather, blended strictly for use as a high-performance metal casting plaster; one that provides uniform working characteristics, fine detail, good strength and faster drying.

Technical Support

Best of all, when you use MCP 15 metal casting plaster, you are backed by R&R's technical expertise and support capabilities; capabilities that are unmatched by other suppliers in the precision casting industry. Our Product and Application Laboratory, including R&D foundry, is dedicated to the development of innovative products and processes. Many precision casting companies have come to rely on our extensive technical support network.

Typical Material Properties*

Product Application	MCP 15 metal casting plaster		
Water/Powder Ratio (By Weight)	80/100	120/100	160/100
Water/Powder (% By Weight)	44/56	55/45	62/83
Pouring Time (Minutes)**	3-4	6-8	8-10
Setting Time (Minutes)**	15-19	25-30	35-40

*These results are based on the testing methods, frequency and procedures of Ransom & Randolph or its approved suppliers. The levels referenced herein are only for general guidance and do not constitute a firm specification.

**Water and powder temperature at 72 °F (23 °C).

Application Instructions

Mix 100 parts MCP 15 metal casting plaster powder to 122 parts water by weight. Mechanically mix for 1-2 minutes. Vacuum the mix until the plaster rises and breaks to eliminate entrapped air.

Pour the plaster into the framed pattern (silicone rubber) under vacuum. If this is not possible, it is recommended that a vacuum is pulled on the plaster mold or that the mold is vibrated to eliminate entrapped air.

Stop the vacuum and place mold on a table. It is important that they do not receive mechanical shocks as this may cause cracking.

The molds can be stripped from the rubber pattern after 30 minutes.

After separating the mold from the pattern, the mold can begin the curing cycle. If there is a need to store the molds for more than 2 hours prior to curing, then attempts should be made to prevent the mold from partially drying.



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Recommended Curing Cycle

- Raise the temperature from 68°F (20°C) to 356°F (180°C) in 2 hours.
- Raise the temperature from 356°F (180°C) to 536°F (280°C) in 5 hours.
- Hold at 536°F (280°C) for 5-7 hours.
- In 30 minutes, go down to desired casting temperature.
- Cast the metal

Note: curing cycles vary due to mold size, oven loading, and oven efficiency.

US: Danger. May cause cancer by inhalation. Causes damage to lungs through prolonged or repeated exposure by inhalation. Contains crystalline silica. See SDS for more information.

EU: Danger. Causes damage to lungs through prolonged or repeated exposure. Contains respirable crystalline silica. See SDS for more information.

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