

RANTYRE™ TIRE MOLDING PLASTER



Ideal to Make Molds for the Vulcanization of Tires

Rantyre tire molding plaster is used to make molds for the vulcanization of tires.

Delivering Consistency with Excellent Benefits

The benefits of using Rantyre tire molding plaster include:

- Reduced mold cracking
- Reduced finishing costs
- Improved as-cast surface finish
- Tighter tolerances
- Reduced warping and cracking

Rantyre tire molding plaster has been delivering material consistency, batch-to-batch for years and has two dedicated, approved manufacturing facilities, in the USA and Germany.

Typical Material Properties*

Consistency (Water/Powder Ratio)	Pour Time	Set Time	Setting Expansion	Permeability (darcy)	Thermal Expansion at 302 °F (150 °C) on cooling curve
46/100 (by weight)	10-11 minutes	<26 minutes	<0.15%	0.03	+ 0.011%

*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.

Application Instructions

Mix 100 parts Rantyre tire molding plaster investment powder to 46 parts water (by weight). Mechanically mix for 2-3 minutes. Vacuum the mix until the investment rises and breaks to eliminate entrapped air.

Pour the investment into the framed pattern (silicon rubber); under vacuum, this operation normally takes 3-4 minutes. Then vibrate the molds, if possible, for 30 seconds to 1 minute to finish eliminating the last entrapped air bubbles.

Stop the vacuum. Take the molds out of the mixing machine and place them 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 30-35 minutes after the initial set.

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.

Recommended Drying Cycle

- Raise the temperature from 68-356 °F (20-180 °C) in 2 hours.
- Raise the temperature from 356-572 °F (180-300 °C) in 5 hours.
- Hold at 572 °F (300 °C) for 5-7 hours.
- In 30 minutes, reduce the temperature to 500 °F (260 °C).
- Cast the metal.



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RANTYRE™ TIRE MOLDING PLASTER

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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