

Gold Star Powders

UK Production and Worldwide R&D Centre

Gold Star Technology

Gold Star Powders UK is at the heart of technology in the development and testing of Investment Powders throughout the Gold Star Group of Companies (that manufacture the famous Gold Star brand around the world).

The extensive laboratories, sited in Newcastle-under-Lyme, are staffed with highly-trained technicians, and are equipped with state-of-the-art testing machinery, such as the XRF, XRD & thermal expansion machines, which ensure that only raw materials of the highest grades and quality are used in any of our mixing facilities throughout the world. All Investment Powder produced must pass stringent test-criteria specifications before dispatch. Every batch of Investment Powder produced is tested in a full casting trial in our in-house casting shop,

Only after passing these casting trials and showing no faults, is the batch of powder released to the customer.

Our state-of-the-art, computer-controlled mixing plant and bagging facility, consisting of two five tonne mixers, is also based in Newcastle-under-Lyme. This is the most modern Investment Powder manufacturing plant in the world and is the largest of its kind, capable of producing upwards of 2,000 tonnes per month of Investment Powder on a 24 hours a day, six days a week, shift pattern.



Uk facility bagging plant.



Thermal Expansion Measurement.



XRD - Cristobalite & Silica Analysis.



XRF - Material Composition Analysis.



Automated Plant Control System.

Gold Star  Powders
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GS Tyrecast

Mixing Instructions

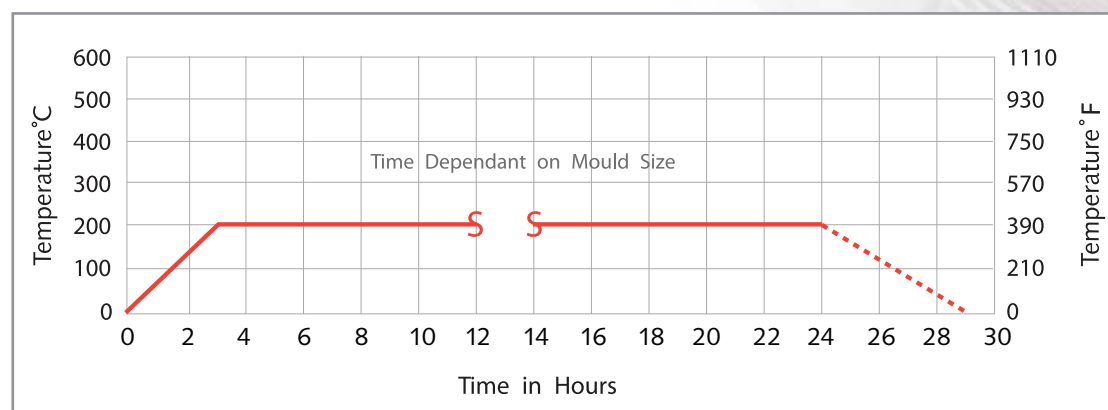
Water : Powder Ratio	Vacuum Mixing	Conventional Mixing
	45 : 100	40 : 100

Machine Vacuum Mixing	Min.
Weigh out water & powder	-
Add powder to water	-
Mix	3
Vacuum	1
Pour flasks	3
Hold mould under vacuum	1
Total time taken	8

Conventional Mixing	Min.
Weigh out water & powder	-
Add powder to water and mix	4
Vacuum	1
Pour slurry into mould	3
Vacuum	1
Total time taken	9

- Leave for 90 minutes to stand before burnout.

Recommended Burnout Cycles



Note: Do not remove flasks from furnace to cast until they have been held at casting temperature for a minimum of 1 hour. If held for less than 1 hour, the core of the flasks will be at a much higher temperature than the digital temperature display states, and may result in metal mould reaction.