



RESPIRABLE SILICA HAZARD FREE INVESTMENT POWDER

GRS has carried out extensive research and development to be able to provide the industry with a product that is not a classified health hazard in relation to respirable crystalline silica, yet still provides the same high level of casting quality and usability as a traditional based investment powder.

In April 2019 we achieved our goal and have applied for a Patent to cover this new technology that enables the production of an Investment Powder that is classified as non-hazardous.

X-SIL technology investment powder can be used like for like in place of traditional investment powders in terms of usage procedures, water ratios, mixing equipment, furnaces and burnout cycles, casting machines, casting temperatures and downstream processes.

X-SIL technology is designed for casting all jewellery alloys from brass up to 24kt Gold.

In order to obtain optimum results when casting with overpressure, the use of a GRS-LE casting flask is beneficial. This flask is made out of a specific grade of stainless steel which improves castability. GRS have also applied for a Patent to cover this new GRS-LE casting flask technology.



WHAT IS THE RISK AND HAZARD CLASSIFICATION OF X-SIL INVESTMENT POWDER?

X-SIL is NOT classified as a hazardous substance in accordance with the Globally Harmonized Standard (EC) No. 1272/2008 for hazardous substances under the CLP regulations and requires the following H&S statements on the product.

Required GHS Labels and Statements

Hazard Label:	Not applicable
Signal word:	Not applicable
Hazard class:	Not applicable
Hazard:	Not applicable
Precautionary:	Not applicable
Other Hazards:	None

Please see SDS for further information.

DO I STILL NEED TO WEAR RESPIRATORY PROTECTION WHILST USING X-SIL TECHNOLOGY PRODUCT?

As with all products of a dusty nature it is recommended that adequate respiratory protection is worn if the operative will be exposed to a higher level of respiratory dust than the local workplace exposure limit (see SDS and local work exposure regulations).





INVESTING PROCEDURE

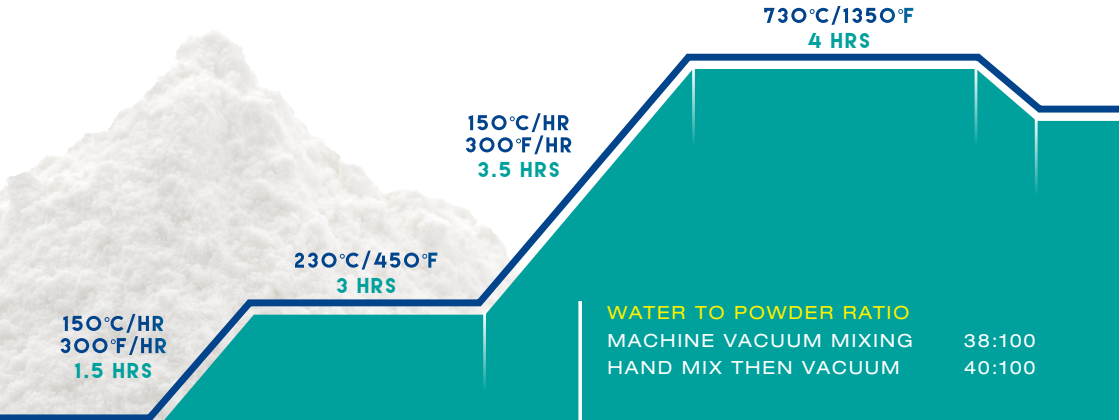
The investing procedure remains the same for vacuum mixing and conventional hand mixing using the same standard equipment currently used in any jewellery manufacturing operations.

WATER : POWDER RATIOS

The Water : Powder ratios remain the same at 38 parts water to 100 parts powders 38:100 or adapted to suit the customers current product range which may be slightly higher.

BURNOUT CYCLE

Burnout cycle remains the same as regular investment powder, meaning casters do not have to modify any burnout procedure. Can be used in all current burnout furnaces.



ALLOYS

Suitable to cast all non-precious and precious alloys including High Palladium White gold.

SURFACE FINISH

X-SIL has been engineered to at least match all cast surface finishes from our premium recipe investment powder range.

INVESTMENT POWDER STORAGE

To be stored under standard investments powder conditions <30°C/86°F

DISPOSAL

X-SIL is a non-hazardous waste product to be disposed of in line with local authority regulations.

WATER TO POWDER RATIO

MACHINE VACUUM MIXING	38:100
HAND MIX THEN VACUUM	40:100

MACHINE VACUUM MIXING

	Min.
Weigh out water and powder	0
Add powder to water	0
Mix under vacuum	4
Pour flasks	2
Vacuum flasks	2
Total time taken	8

HAND MIX THEN VACUUM

	Min.
Weigh out water and powder	0
Add powder to water	0
Mix by hand	1
Mix with machine	3
Vacuum mixer bowl	1
Pour flasks	1
Vacuum flasks	2
Total time taken	8

