

Gold Star Powders

Shell Moulding Materials

Goodwin Refractory Services aims to establish and maintain long-term relationships with our Precision Casting customers, helping them meet the demands and challenges in a growing industry.

We process and quality check, at our fully automated facilities in the United Kingdom, the highest quality materials in order to meet the most exacting and demanding challenges of the industry.

Key products of the GRS include refractories for addition to the binder, refractory stuccos for the building process of the shell, and high technology shell repair materials.



Molten metal being poured in to shell moulds for the aerospace industry.

Refractory Products

Mullite 55 is a high Alumina content refractory material for the back-up Slurry and Stucco.

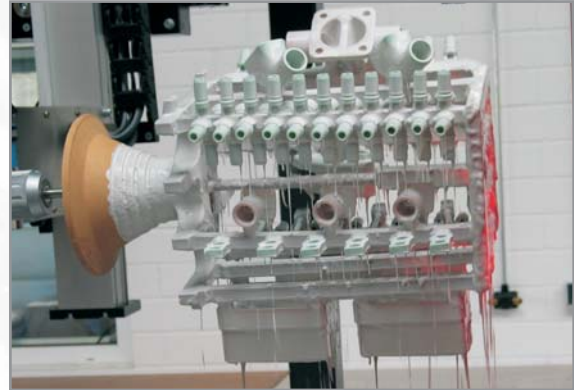
Zirconium Silicate High purity sands are used for the specialist manufacture of Precision Casting grade materials for primary Slurries and Stuccos.

Fused Silica High purity Amorphous Silica is used to manufacture all grades suitable for both Slurry and Stucco applications.

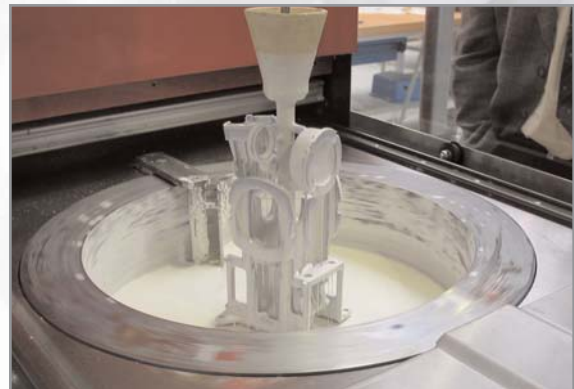
Repair Products

Rhoseal is designed for shell repair in Aerospace applications where high purity is a prerequisite.

Silroc is for all commercial shell repair applications.



Draining of primary slurry prior to stucco coating.



Slurry coating shell mould.



Stucco coating shell mould in rain chamber.

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REFRACTORY PRODUCTS			
Primary Slurry	Typical Grades	Mean Size	Uses
Zirconium Silicate Flours	200's	90% < 50 Microns	Primary Slurry addition for Aerospace and commercial applications
Zirconium Silicate Sand	M170	90% <180 Microns	Primary Stucco for Aerospace and commercial applications
Mullite 55 Flour	200's	80% < 45 Micron	Back-up Slurry addition for Aerospace and commercial applications
Mullite 55 Stuccos	16-30's 30-80's 50-80's	1.0 to 0.5mm 0.5 to 0.18mm 0.3 to 0.18mm	Back-up Stucco addition for Aerospace and commercial applications
Fused Silica Flour	200'S	90% < 75 Microns	Primary Slurry addition for Aerospace and commercial applications
Fused Silica Stuccos	50/100 10/20	0.3 to 0.15mm 1.7 to 0.85mm	Back up Stucco addition for Aerospace and commercial applications

SHELL REPAIR PRODUCTS				
Repair Product	Iron Content	Lead Content	Bismuth Content	Uses
RHOSEAL	< 1500ppm	< 50ppm	< 1ppm	High purity Aerospace
SILROC	0 – 1.5%	0.009%	N.A.	All forms of commercial casting