



Magma is a leading supplier of crucibles, ladles and spouts to the Investment Casting industry with over 20 years' experience within this sector.

Crucibles

At Magma we select the best material formulations to provide outstanding resistance to corrosion and erosion ensuring that our crucibles give the best performance possible. Together with our excellent thermal shock properties and consistent

performance, in terms of reducing casting contamination, Magma's ceramics can significantly increase productivity within your process.

With our Ceramics homogeneous structure and resistance to spalling in comparison to more conventional materials Magma's crucibles can offer a significant cost benefit both in terms of process performance and product yields. Our crucibles are available in melting capacity from 0.5kg to 3000Kg.

Spouts and Ladles

Magma's Spouts and Ladles are made from the same ceramic materials as our crucibles, thus reducing contamination significantly when compared to conventional rammed ladles etc. Liners and spouts can be supplied in a range of standard sizes and designs, but for a more bespoke solution, please contact our team such that we can offer a specifically designed product around your own furnace and application requirements.

Magma Ceramics & Catalysts
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Preformed spouts provide a clean consistent metal to metal pour and are specifically made to your geometry and furnace size and dimensions.

With Magma's crucibles and ladles you can expect:

- Clean melts
- Consistent performance
- Excellent thermal shock resistance
- Materials including; High purity Alumina, Zirconia, Magnesia, Fused Silica, Sillimanite, Chrome-Alumina.

- Durability and long life
- A large range of crucible sizes
- Custom shape capabilities from our in-house mould shop
- Foundry visits to understand your requirements

Crucible choice and application

Choosing the correct crucible for the melting of ferrous/non-ferrous alloys is often viewed as a minor detail, when in fact great effort should be given to this critical choice. Poor crucible performance can have dramatic effects on a foundry's costs and seriously

affect the competitive ability of a business.

The quality and performance of the crucible can be measure directly through product scrap rates and down time costs resulting from crucibles changes. Unfortunately productivity can be adversely affected by the wrong selection of material. Therefore if you have any questions regarding your application, please contact Magma's technical sales staff for advice in choosing the right product for your process.

Material Ref:	SiO ₂ (%)	Al ₂ O ₃ (%)	ZrO ₂ /HfO ₂ (%)	Cr ₂ O ₃ (%)	CeO ₂ (%)	MgO (%)	AP (%)	BD (g/cm ³)	CCS (N/mm ²)	MoR (N/mm ²)	Material:	Application Areas:
SA1	1.5	98	-	-	-	-	17	3.1	65	-	Alumina	Steel ladle nozzles
MSA3	1.4	93.5	-	-	-	4.4	18	3	120	-	Alumina Spinel	Steel ladle wellblocks
CAL	1.6	94	-	4.4	-	-	22.5	3	65	-	Alumina Chrome	Induction furnace crucibles with enhanced slag resistance
MagB	0.3	-	-	-	-	97	-	-	-	-	Magnesia	Basic dry powder ramming mix
M1	1.5	3	-	-	-	95.5	19	2.82	35	-	Magnesia	Crucibles, pouring spouts for basic slag chemistry
90V Alumina	9	90	-	-	-	0.15	18	2.92	98	17.2	Alumina	Crucibles & multi-use pouring refractories
Iso 90A Magnesia	0.02	8	-	-	-	90.2	18.5	2.88	52	20	Magnesia	Isostatically pressed Induction melting crucibles
Iso ABR MS Zirconia	0.09	0.19	92	-	5.2	3.6	20	4.64	-	30	Zirconia	Isostatically pressed Induction melting crucibles, for very high melting points, including precious metals
Iso S90 Alumina	9	90	-	-	-	0.02	20	2.85	90	23	Alumina	Isostatically pressed Induction melting crucibles

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