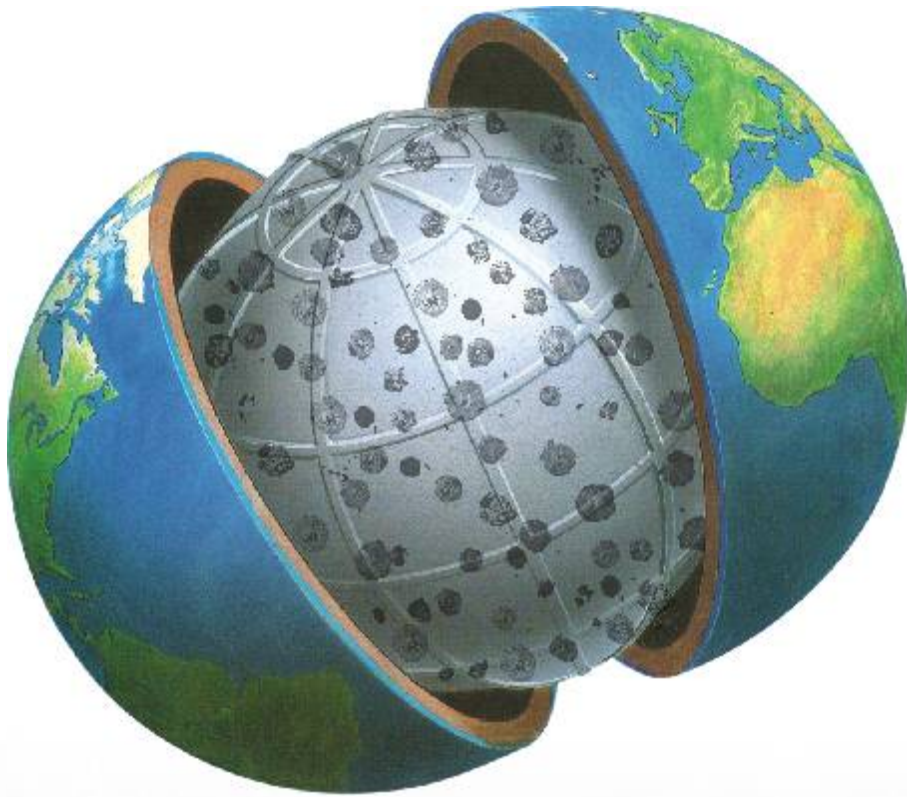


# *Opening the World of Nodules ...*



***Nodularisers***  
***Inoculants***  
***Aluminium Alloys***



**KASTWEL FOUNDRIES**  
*Masters of Master Alloys Since 1974*



## The Metallurgical Symphony

**Kastwel Foundries**, founded in 1974, is the pioneer in development of **Nodularisers** in India and has been associated with the growth of S.G.Iron industry, for more than three decades.

- **MagKast** nodularisers-FeSiMg and NiMg, are widely accepted due to consistent quality and high recovery.
- **Inocast** inoculants imported from modern plants in Brazil, China and Europe are tailor made for specific Gray Iron and S.G.Iron applications.
- **Kastwel** offers the right techno-commercial solution to melt shops in S.G.Iron and Gray Iron foundries.
- The range of products include **Aluminium Master Alloys** for modification, grain refinement and alloying.
- Consistent quality ensured by XRF spectrometer analysis.

### Nodularisers

**Magkast Nodularisers** are produced in induction furnaces and cast in permanent moulds, to give good consistency and homogeneity. Controlled additions of **Ca** and **TRE** are made to reduce severity of reaction and to improve magnesium recovery.

#### Ferro Silicon Magnesium

Grade	% Mg	% Ca	% TRE	% Al	% Si	% Fe	Application
MagKast - 511	5-6	0.5-1	0.5-1	1.2 max	43-48	Bal.	These alloys are very economic and most commonly used Nodulariser. Alloy selection depends on Sulphur and Silicon levels of base iron.
MagKast - 515	5-6	1-1.5	1-1.5	"	"	"	
MagKast - 522	5-6	1.5-2	1.5-2	"	"	"	
MagKast - 510	5-6	1-1.5	-	"	"	"	
MagKast - 611	6-7	0.5-1	0.5-1	"	"	"	
MagKast - 615	6-7	1-1.5	1-1.5	"	"	"	
MagKast - 622	6-7	1.5-2	1.5-2	"	"	"	
MagKast - 722	7-8	2-2.5	2-2.5	"	"	"	
MagKast - 811	8-10	0.5-1	0.5-1	"	"	"	
MagKast - 822	8-10	1.5-2	1.5-2	"	"	"	
MagKast - 810	8-10	1-1.5	-	"	"	"	
Nodule Plus+	7.5-8.5	As per proprietary formulations	1.2 max	43-48	Bal.	Can be used for high S base iron. Less addition. As low as 0.6%.	

- **Size Range** : 0.5 - 3 mm, 3 - 5 mm, 5 - 15 mm, 15 - 25 mm  
**Dense Packed Sizes** : 1 - 15 mm, 3 - 25 mm

#### Nickel Magnesium

Grade	% Mg	% TRE	% Ni	Application
MagKast - 140	14-16	-	Bal.	Used for S.G.Iron where some alloying with Nickel is required / beneficial. The alloy does not float easily and hence good recovery.
MagKast - 141	14-16	0.8-1.2	"	
MagKast - 150	16-18	-	"	
MagKast - 151	16-18	0.8-1.2	"	
MagKast - 170	18-20	-	"	
MagKast - 171	18-20	0.8-1.2	"	

- **Size Range** : 5 - 25 mm, 25 - 80 mm



In addition, several tailor made grades are available to suit individual requirements.

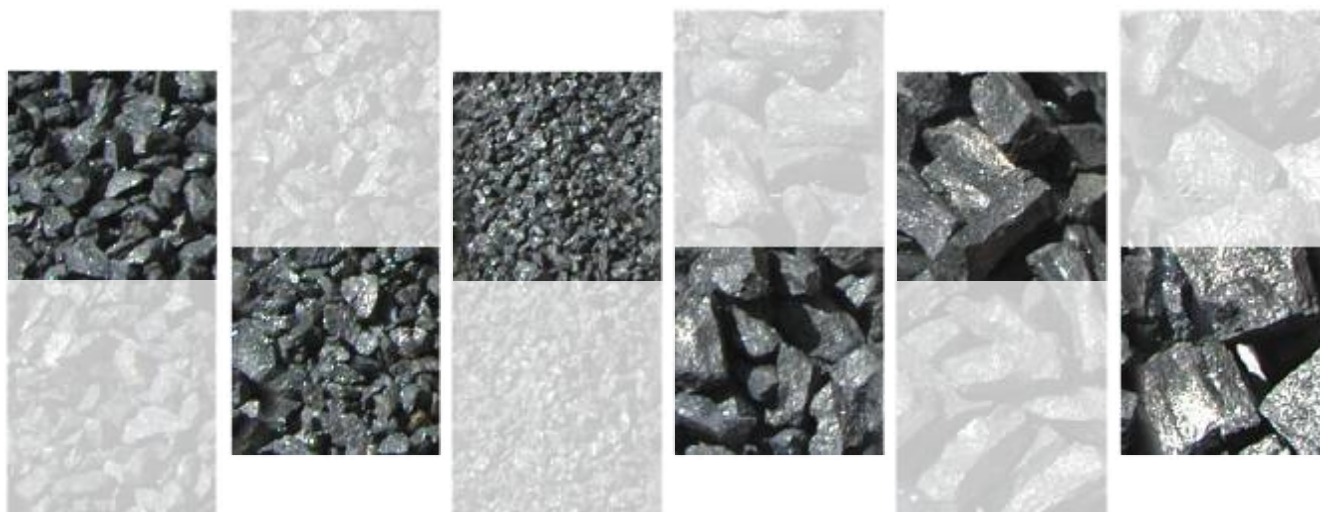
## Cast Inoculants

Inocast series of Cast Inoculants are the new generation inoculants, where all ingredients are melted together, giving much better homogeneity. They give consistently improved performance, in both Gray Iron and S.G.Iron.

Inocast grades of inoculants are imported from world class plants in Brazil, China and Europe. Each batch is analysed on XRF Spectrometer to ensure consistency.

Grade	% Si	% Ba	% Mn	% Ca	% Al	% Zr	% Fe	Application
<b>Inocast - SB2</b>	70-75	2-3	-	1.0-1.5	1.0-1.5	-	Bal.	Very good fading resistance. High nodule count in S.G. Iron.
<b>Inocast - MB</b>	60-65	4-6	9-12	1.5-3.0	1.0-1.5	-	Bal.	Suitable for low & high temp. iron. Not suitable for fully ferritic S.G.Iron.
<b>Inocast - GN</b>	70-75	-	-	0.8-1.2	0.8-1.2	-	Bal.	General purpose inoculant at economical price.
<b>Inocast - MZ</b>	60-67	2.0-2.5	5-7	1.0-1.5	1.0-1.5	5-7	Bal.	Suitable for low temp. iron & in thin sections. Not suitable for fully ferritic S.G. Iron.
<b>Inocast - Z 75</b>	70-78	-	-	2.0-2.5	0.8-1.3	1.0-2.0	Bal.	Potent inoculant with good fading resistance for Gray Iron.
<b>Inocast - S 75</b>	70-78	-	-	0.1 max	0.5 max	% Sr	Bal.	Excellent chill reduction, even in thin sections. Effective in S.G.Iron with low TRE levels.
						0.8-1.3		
<b>Inocast - BI</b>	70-75	-	-	-	1.0 max	% Bi	Bal.	Very effective for thin section S.G.Iron casting. High nodule count - up to 600/mm <sup>2</sup> .
						2-3		
<b>Inocast - RE</b>	70-78	-	-	1.5-2.0	1.0-1.5	% TRE	Bal.	Very effective in thin walled castings of S.G.Iron. Increases nodule count by 50%.
						3.0-3.5		

- Size Range : 0.2 - 0.7 mm, 1 - 3 mm, 3 - 6 mm, 6 - 12 mm





# Aluminium Master Alloys

Master Alloys for aluminium casters and extrusion plants for modification, grain refinements and alloying addition.

## Modifiers

Grade	% Sr	% Si	% Al
AISr5	4.5-5.5	Nil	Bal.
AISr5Si	4.5-5.5	As Required	"
AISr10	9.5-10.5	Nil	"
AISr10Si	9.5-10.5	As Required	"

Metallic Modifiers for modification of Silicon phase to improve mechanical properties.

## Grain Refiners

Grade	% Ti	% B	% Al
AITi3B1	2.5-3.5	0.8-1.2	Bal.
AITi5B1	4.5-5.5	0.8-1.2	"
AITi5	4.5-5.5	Nil	"
AITi10	9.5-10.5	Nil	"

Metallic Grain Refiners for achieving as-cast fine grained and uniform structure.

## Hardeners

Grade	Composition
Antimony - Aluminium	5% Sb
Bismuth - Aluminium	2, 8% Bi
Chrome - Aluminium	5, 10% Cr
Copper - Aluminium	20, 30, 50% Cu
Iron - Aluminium	15, 25 % Fe
Magnesium - Aluminium	10, 25 % Mg
Manganese - Aluminium	5, 10 % Mn
Nickel - Aluminium	5, 10, 25 % Ni
Silicon - Aluminium	20, 30, 50 % Si

Various master alloys with one or more alloying element.

Makes it easier to prepare the alloy of right composition.

Useful in easy and precise addition of alloying elements to aluminium melts.

- Shape : Cut Rods, Bars, Ingots, Nuggets, Coils.



## Kastwel also offers

- Nodu-Sticks - An economic co-nodulant
- Melt Pre-Conditioners for Gray and S.G.Iron
- Pure Magnesium
- Mischmetal
- FeCaSi
- FeSiZr
- Ferro Alloys
- Cored Wire
- Equipments

## Representation



- **SORELMETAL®** - Rio Tinto Iron & Titanium Pte Ltd.  
High Purity Pig Iron for S.G.Iron Foundries  
Representatives for East, West and North India.



- **Jinan Shengquan Group Share-holding Co. Ltd.** - China  
Resins-Furan, Phenolic, Cold Box, Hardeners,  
Ceramic Foam Filters, Mould Coatings.



- **Fata Aluminium** - Italy, USA, China  
Core Shooters, Sand Reclamation Plants, Tooling.



- **Tennant Metallurgical Group Ltd.** - UK  
**TENBLOC®** - Mould inoculation, **TENROD®** - Cored Wire, Ferro Alloys



- **Primafond S.r.l.** - Italy  
Core Shooters, Wedge Feeder Breakers, Pre-owned foundry equipments.



## Quality

Kastwel uses tested raw materials and has a strict process control system in place, thus building unmatched quality in all its products. All products are tested using a XRF- Spectrometer.



## Client Relations

Our goal has always been to contribute to the growth of our customers, whether big or small. We make sincere efforts to be a reliable supplier of not only products but also solutions. The vast family of satisfied clients bears testimony to our commitment to quality and delivery.

## Technical Support

**Kastwel** offers solutions from top technocrats to quality issues of its clients. **Kastwel Training Center** conducts regular training programs like S.G.Iron Technology Conclave for the foundry industry. It also imparts customized training programs for foundries.



## Mission

Our endeavour is to constantly expand our spheres of operation using the flexibility of a small and effective organization, but with the vision of changing global scenario. We believe, the true value of our products is reflected in the solutions we provide to the clients. We will constantly strive to adapt and improvise, in order to maximize the value to our clients at all times.

**We Bring you World Class Technology with Economy**

**QUALITY • EXPERTISE • TECHNOLOGY • FLEXIBILITY**

*Try to Match  
our  
Nodules...*



## ***Kastwel Metallurgical Confluence***

***Offers You  
Emerging Technologies,  
Equipments,  
Raw Materials,  
Training  
&  
Technical Services  
from the World over***



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