



**INNOVATIVE
ALLOYS**

+

**EXCELLENT
ADVICE**

=

**PREMIUM
CASTINGS**

Best alloy quality you can rely on



Inoculants

Inoculants are FeSi based alloys containing carefully balanced amounts of active elements. Thus, you can control and improve microstructure and mechanical properties of cast irons.

The complete Elkem portfolio of inoculants offers you solutions for a wide range of applications even in the most challenging cast iron segments.

Improve your cast iron quality with Elkem inoculants, for example, the well-known Superseed® inoculant, probably still the most widely used alloy in the production of grey iron globally.



Nodularisers

For your production of ductile and compacted graphite irons, you can rely on the extensive range of MgFeSi alloys from Elkem.

Elmag® and Lamet® are available in over a hundred compositions and sizes to suit all your applications, such as sandwich, tundish, flow-through, in-the-mould or other processes.

Using Elkem nodularisers, you can cut your overall costs, increase productivity and reduce your environmental impact.



Recarburisers

If you produce grey and ductile iron castings or high-grade steel, recarburisers from Elkem are an excellent ingredient to maximise your carbon recovery.

With their high purity and crystallinity, they enhance your final products and deliver consistent quality.

Elkem's Elgraph® recarburisers have proven to give premium performance on dissolution rate and carbon recovery, with extremely low nitrogen/hydrogen content.



Get in touch with your regional Elkem representative on

elkem.com/foundry

How innovative foundry alloys increase your quality

What makes a foundry successful today? In most cases, it will be a combination of an extremely efficient production and flawless cast products. Low emissions and energy consumption as well as low scrap rates are key attributes in the production process.

To achieve this level of process efficiency and product quality, use the innovative alloys and the shared expertise of Elkem. This is the formula of your success in casting.



Foundry Products

Use our unique range of foundry products as well as tailor-made solutions to improve your castings:

- ▶ magnesium ferrosilicon alloys
- ▶ inoculants
- ▶ preconditioners
- ▶ cover materials
- ▶ recarburisers and inserts
- ▶ ferroalloys for steel



Tech Advice

Discover the power of our technical support staff for your foundry.

They have extensive experience with all types of production methods for iron and steel grades. Let us give you the best advice possible to help you eliminate defects and optimise your metal treatment processes.

< 2% > 30%

Foundry additives account for less than 2% of your costs ...

...but can reduce your metallurgical rejects by more than 30%.

“With the Elkem Foundry alloys and technical support we have achieved an even better quality for our castings.”

Laszlo Pelsöczy, Global Technology Manager, Materials, Federal-Mogul Powertrain, Rings and Liners

Trust in our know-how through your production process

Dimensional precision, reproducibility, mechanical properties, surface and shrinkage criteria: To accomplish castings to the exact specifications, Elkem helps you to improve your process at every step. Our experienced technical service engineers, together with our laboratory facilities will deliver you the solution for improved quality and efficiency.



Preparing for consistent production results

- ▶ Control nucleation
- ▶ Preconditioning
- ▶ Trim additions

Transforming your iron

- ▶ Tailor made Elmag® alloys
- ▶ Topseed® cover alloys
- ▶ Thermal analysis



Metal Transfer

Finalising your metal quality

- ▶ First step inoculation
- ▶ Measure nucleation
- ▶ Full fading control



Cleaning & Recycling

Working together to minimise waste

- ▶ Reduce scrap and rejects
- ▶ Cast exact to shape
- ▶ Lower production costs



Casting

Helping you produce premium castings

- ▶ High potency late stage inoculation
- ▶ Consistent properties
- ▶ Slag and gas control



Machining

Exceeding customer requirements

- ▶ Targeted microstructure
- ▶ Improved tool life
- ▶ Consistent casting quality

Improved processes

Along the process steps of your casting, Elkem can be of great help with much more than the right alloys. Trust in our experienced metallurgists to get the best results.

“A prompt and professional service with full technical support and backup.”

Bob Radford, Managing Director,
BAS Castings Ltd

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