ASKCHEMICALS

GERMALLOY and OPTIGRAN C

NEW CUT INOCULANTS WITH LOW TOLERANCES AND HIGH SPECIFICATION

The production of heavy-duty castings places high demands on the inoculation technique and inoculant used. Mold inoculation is the addition of inoculants at the latest possible time. This is particularly relevant in the production of thick-walled parts. During mold inoculation, the inoculant is placed into the casting basin or directly into the mold. The dissolution takes place under exclusion of air, directly in the iron over the entire casting time. For mold inoculation,
preferably cast inoculation blocks should be used, otherwise there is a risk of flushing in undissolved inoculant granules with negative consequences for the casting structure.

While standard castings with a wall thickness of 5-50 mm solidify within seconds to a few minutes, the solidification of thick-walled, heavy hand-molded castings with a wall thickness of 60 mm or more can take several hours, depending on the casting temperature.
The new cut inoculants GERMALLOY C and OPTIGRAN C offer a constant inoculation effect as well as additional technical advantages.

TECHNOLOGICAL ADVANTAGES

- High specification
- Low weight tolerances
- Improved form fixation due to more precise dimensions
  - Better stability for on top of filter/strainer core placement
- Precise adjustment of the inoculant quantity possible
- Special weights, dimensions, and composition mixtures possible
  - More consistent shape
- Achievement of optimal graphite morphology
  - Smoother surface finish

K type mold inoculants are used in machine mold castings.
F types are placed onto the filter or strainer core.

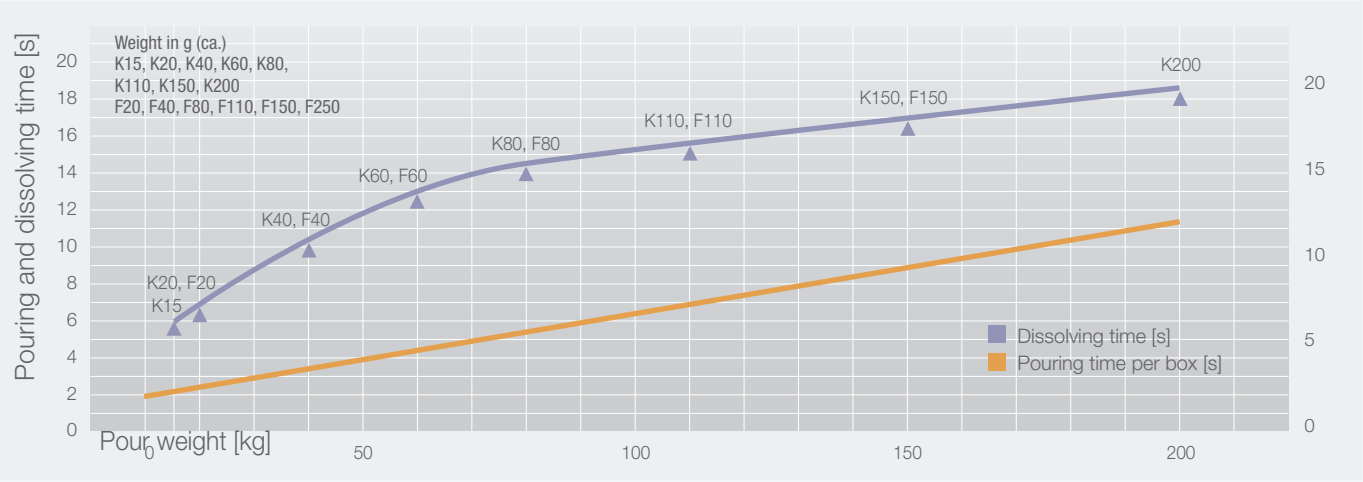

Figure 1: Pouring and dissolving time of cut mold inoculants

GERMALLOY C and OPTIGRAN C with low tolerances and high specification

The use of GERMALLOY C improves the sphericity of the graphite and optimizes the mechanical properties of the casting. With OPTIGRAN C, casters can achieve a finer, uniformly distributed A-graphite expression in the gray iron casting.

The inoculant surface guarantees good and uniform dissolution behavior of the mold inoculant. As shown in Figure 1, the optimum casting and dissolving time for the cut mold inoculants is adaptable to the casting weight depending on their size.

Thanks to the high-specification manufacturing process, the mold inoculants have high dimensional, surface, and weight accuracy, making them suitable for robotic handling and automatic insertion into the mold.

The dimensions of the inoculants can be chosen in such a way that existing core marks can be used as placeholders for the inoculants. The core marks can usually be reused.

With production in Germany, long delivery chains can also be avoided and supply bottlenecks quickly overcome.

YOUR SUSTAINABILITY **PLUS**

Profitability

- Higher productivity
  - Less graphite degeneration
  - Less rework
  - Standardization and automation possible
- Higher quality of inoculants
  - More accurate inoculation due to high specificity

Environment & Social

- Suitable for automation with robot insertion
  - Less manpower needed
- Produced in Germany