

FLUORINE-FREE EXACTCAST™ RISERS

More than environmental benefits

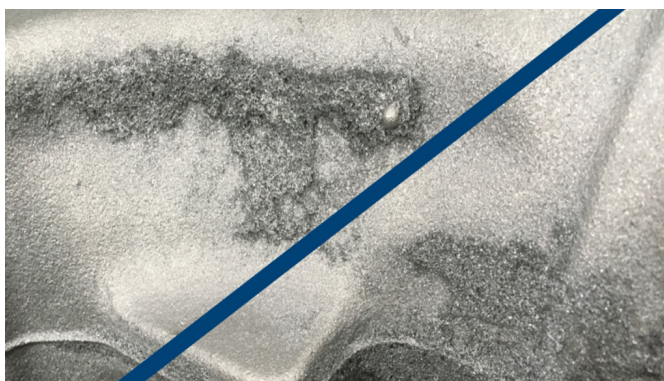
SUCCESS STORY



More than environmental benefits: Fluorine free risers reduce scrap and contribute environmental advantages.

RESULTS

- Reduction of rework and scrap due to explosion penetrations
- Lower disposal cost for old sand and dust
- Avoids fluorine-caused surface defects
- Less graphite degeneration



Less mold explosions and penetration explosions thanks to EXACTCAST™ fluorine-free risers.

STARTING POINT & CHALLENGE

Many different production parameters have direct or indirect influence on the quality of castings. Unfortunately, foundries cannot avoid a certain amount of scrap due to the high process complexity, and the many influencing factors as well as their interactions. A deeper look by ASK Chemicals experts on the scrapped parts can help to find solutions to reduce the scrap rates. Well known influencing factors are explosions and penetrations caused by a high gas development in the casting, often in combination with insufficient venting. Additional shotblasting can reduce the defects, but this is often not enough to obtain satisfactory surfaces. Although the process can save a lot of castings, it comes with considerably higher costs that have not always been considered in the initial calculations.

In this particular case, the foundry was fighting with explosions / penetrations that were influenced by the risers used.

SOLUTION

The proposal of fluorine free risers from ASK Chemicals was the key to reduce the scrap and rework rate significantly. The special burning curve of ASK Chemicals fluorine free formulations can avoid an ignition of the molding gases, which is the cause for the surface defect.

PROFILE OF THE FOUNDRY

Location	Europe
Material	Nodular gray iron
Casting weight	40 - 180 kg
Cast parts	Axles, body parts
Markets	Agriculture and heavy machines



Figure 1: **Elimination of surface defects:** Fluorine-free risers from ASK Chemicals enhance productivity by eliminating surface defects caused by fluorine reactions.

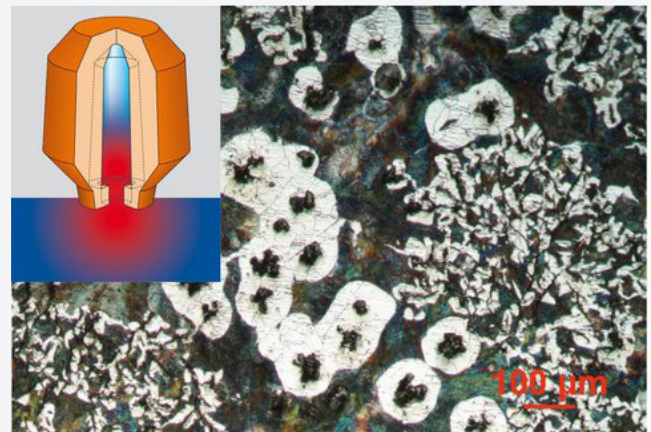


Figure 2: **Reduction of graphite degradation:** The fluorine-free recipe helps minimize graphite degradation in ductile iron that is usually encountered in the feeder's zone of action.

TECHNICAL PROFILE OF THE SOLUTION

The ASK Chemicals fluorine-free risers from offer crucial quality advantages and can eliminate fluorine contamination of the sand.

This benefits both the environment and the foundry by reducing the quantity and disposal costs of the used sand.

BENEFITS AT A GLANCE

Technological

- Prevents fluorine surface defects
- Reduces graphite degeneration
- Reduces explosions / penetration
- Variable volumes

Environment & Workplace

- No fluorine from the riser
- No organic emissions with silicate bonded risers
- No toxic ingredients

Total Costs of Ownership

- Less scrap and rework
- Less disposal costs for used sand and dust

CONTACT YOUR EXPERT TODAY:
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