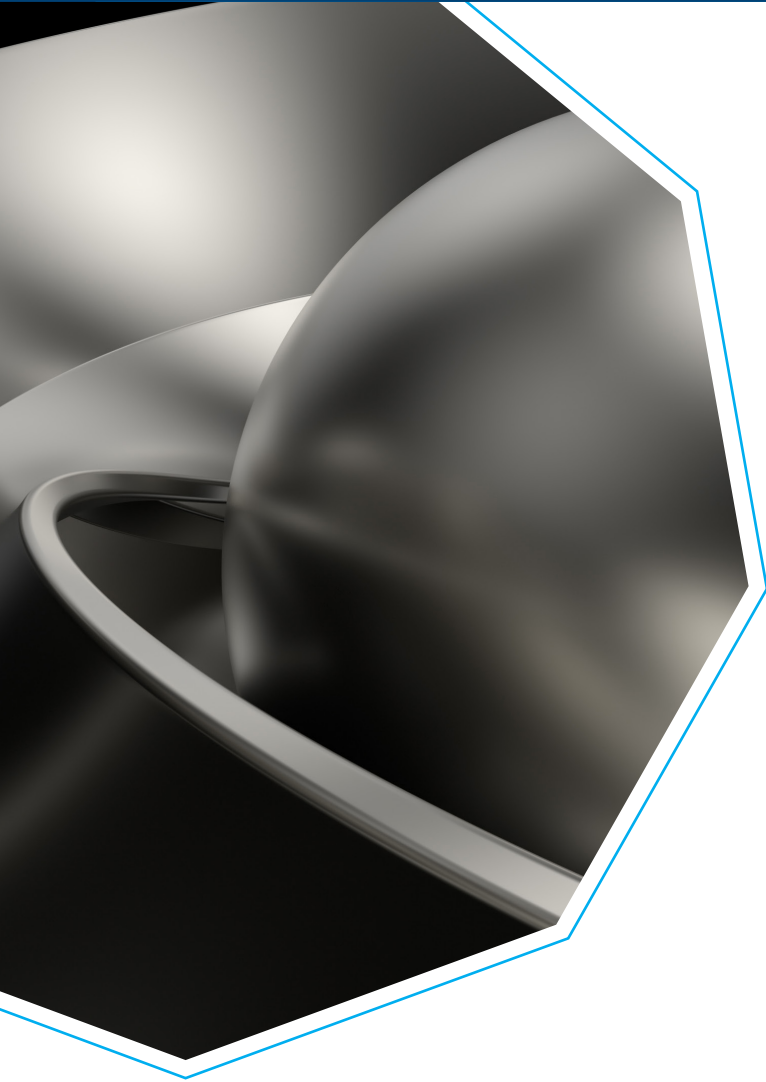


EXACTCAST™ PADDINGS



MORE DESIGN FREEDOM AND SHORTER TIME-TO-MARKET WITH EXACTCAST™ PADDINGS

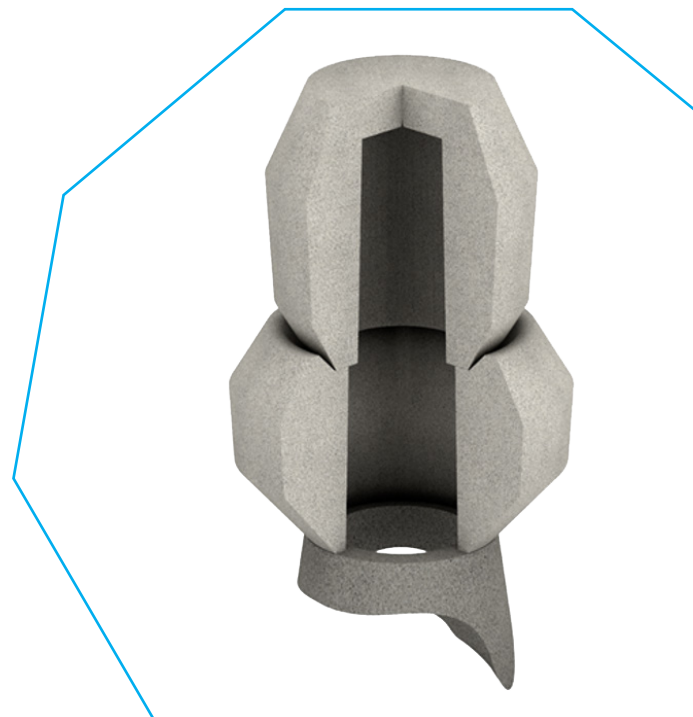
The demands for castings have changed significantly in recent years. Increasingly complex geometries, heavier strains and even thinner walls are demanded, while quality requirements remain unchanged or have increased even further.

This presents foundries with the challenge of producing castings with demanding specifications and highest precision.

The freely moldable EXACTCAST™ paddings are an innovation that allows the optimal feeding of difficult geometries.

TECHNOLOGICAL ADVANTAGES

- Directional solidification and increased feeding length
- Combination with risers possible
- Unlimited forming possibilities
- Binder systems exothermic masses: PEP SET (PU No-Bake), Cold Box, Linocure
- Binder systems insulating masses: all organic binder systems
- Data are included in common simulation software



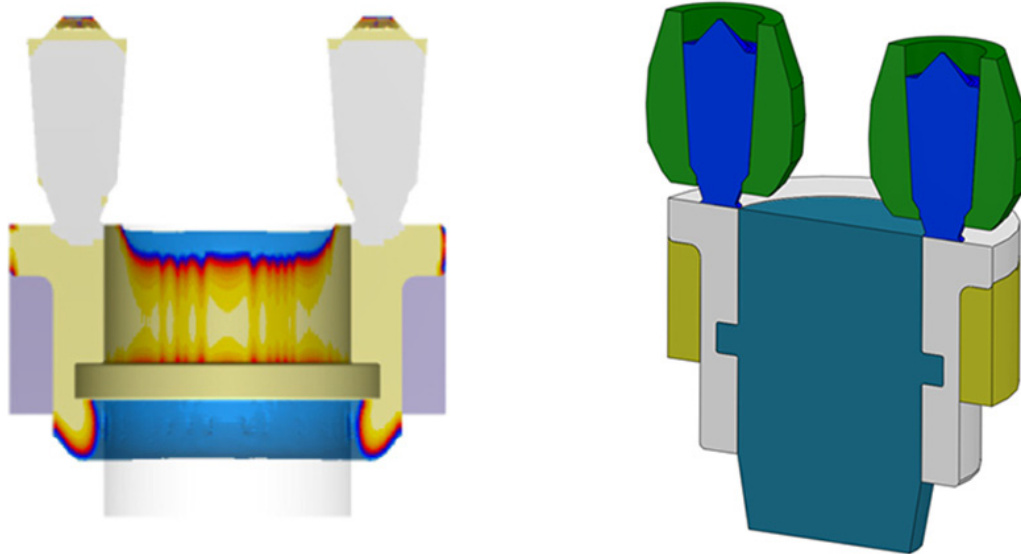


Figure 1: Feeding simulation of casting with risers and EXACTCAST™ paddings (left) and structure of casting incl. risers (green) and EXACTCAST™ paddings (yellow) (right)

Opportunities with EXACTCAST™ paddings

EXACTCAST™ paddings are freely moldable components made of exothermic or insulating material, which enable directional solidification and increase the feeding distance. The use of contour-forming paddings is particularly useful for components with thin walls that connect the nodes of the component with one another. These make it possible to delay the solidification to such an extent that the nodes can be fed via the thin walls. The use of paddings is economically attractive in components with difficult-to-access areas of residual solidification or geometries where several individual risers can be combined.

The use of this new technology leads to the preservation of the originally designed geometry. Expensive and time-consuming changes to the geometry, which normally have to be carried out to guarantee the feed, are no longer necessary with EXACTCAST™ paddings.

This not only shortens the development time of castings but also enables the realization of the originally envisioned component without additional effort in the fettling shop or mechanical processing. What's more, the weight optimization of cast components opens the door to completely new possibilities. The associated increase in output and reduced rework increase the efficiency of the manufacturing process.

Easy handling and development of the EXACTCAST™ padding geometry

EXACTCAST™ paddings have been specially developed for use in both Cold Box and PEP SET processes. Organically bound paddings are almost unlimited in their geometry. Application takes place directly as a forming section of the cast part surface. Highly refractory insulating or fluorine-free exothermic mixtures permit use without the

risk of burning or graphite degeneration.



Figure 2: Example of EXACTCAST™ padding

YOUR SUSTAINABILITY PLUS

Profitability

- No component modification
 - Short development times
 - Faster time-to-market
- More efficient production process
 - Higher yield
 - Less casting defects such as burnings or graphite degeneration
 - Reduced rework

Environment & Social

- Energy savings
- Optimized weights