

# VEINO ULTRA™ MBM 2



## HYBRID ADDITIVE FOR THE REPLACEMENT OF SPECIAL SANDS

The production of thermally stressed, complex cores and complex casting geometries places high demands on casting expertise and the raw materials used. Even small changes to a geometry or process can lead to casting defects and the associated resource-intensive and expensive rework. Serious casting defects even lead to scrap.

With the new VEINO ULTRA™ MBM 2, ASK Chemicals has developed an innovative sand additive that can replace or reduce the use of special sands while achieving excellent casting performance.

## TECHNOLOGICAL ADVANTAGES

- (Partial) Replacement of special sands
- Comparably good casting results in combination without/reduced special sand quantity
- Avoidance of casting defects, such as veining, penetration and deformation
- Less core box wear compared to chrome ore sand



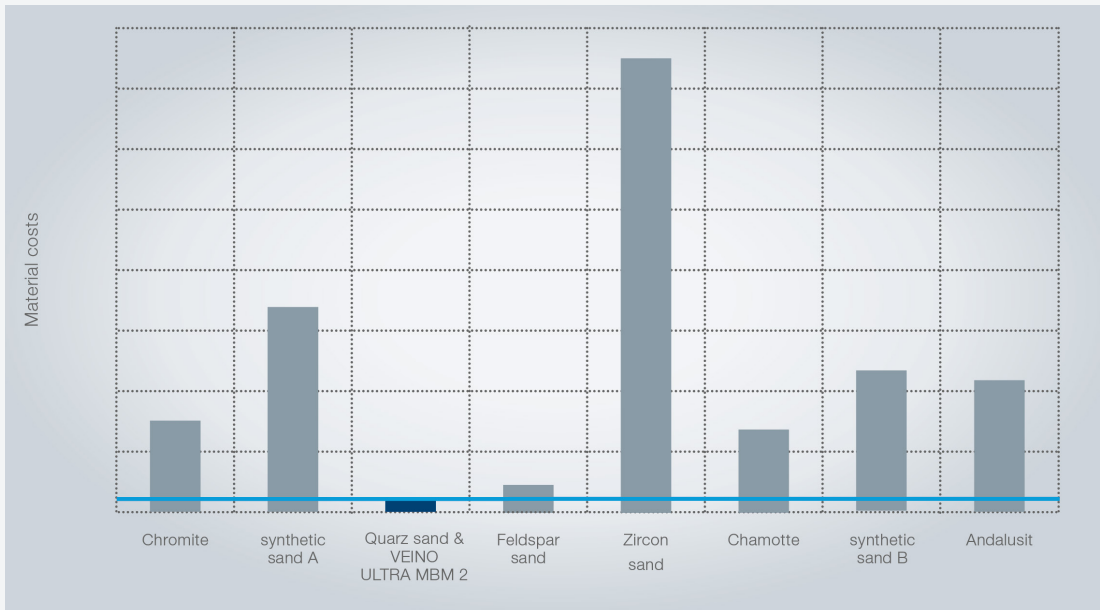


Figure 1:  
Possible cost savings  
by replacing special  
sand

### Special sand reduction with engineered sand additives

Special sands are often used to cast complex casting geometries perfectly. The most widespread special sands are chrome ore sands, andalusites, feldspar sands and ceramic sands such as bauxite sand. Special sands have a very high efficiency against casting defects and emit little to no gas or odor. However, with few exceptions, regeneration (incl. separation) is difficult and the disposal causes high costs, especially in the case of chrome ore sand, as more and more disposal companies refuse to accept used sand contaminated with chromium ore. The performance of special sands nevertheless remains undisputed. The use of special sands is expensive – the costs vary greatly due to the fluctuating raw material and energy prices for production, refinement and transport. The situation is different with VEINO ULTRA™ additives. VEINO ULTRA™ MBM 2 offers foundries the possibility to reduce the use of special sands while achieving the same or better casting results. The hybrid additive, which consists of 70% inorganic components, impresses with its good technical performance and low emission load.

### Casting defect prevention thanks to VEINO ULTRA™ MBM 2

Field trials in various foundries with different molding materials have demonstrated the performance capability of the newly engineered sand additive. The aim was to dispense with different special sands or to significantly reduce the amount used. The additive VEINO ULTRA™ MBM 2 performed very well in all test trials. Figure 2 compares the casting results of a step core cast with 50% chrome ore sand and 50% silica sand and a core cast with 100% silica sand using VEINO ULTRA™ MBM 2. The additive VEINO ULTRA™ MBM 2 can be used universally in various molding compounds. It can be used in engine block and cylinder head production as well as for filigree geometries such as water jackets and oil return ducts, and also for brake disc or housing production.

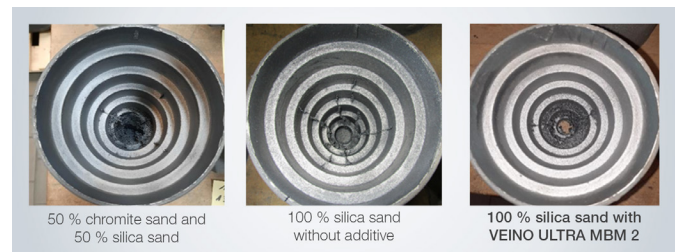


Figure 2: Large step cone, GJL. Casting temperature 1410°C. Water coating, approx. 300 µm layer thickness

## YOUR SUSTAINABILITYPLUS

### Profitability

- Low addition rates compared to special sands
- Lower material costs compared to special sands

### Environment & Social

- Hybrid additive with >70 % inorganic components
- No resin coating for less emissions
- Lower transport volumes in the procurement process and internal plant logistics
- Unproblematic disposal of used sands