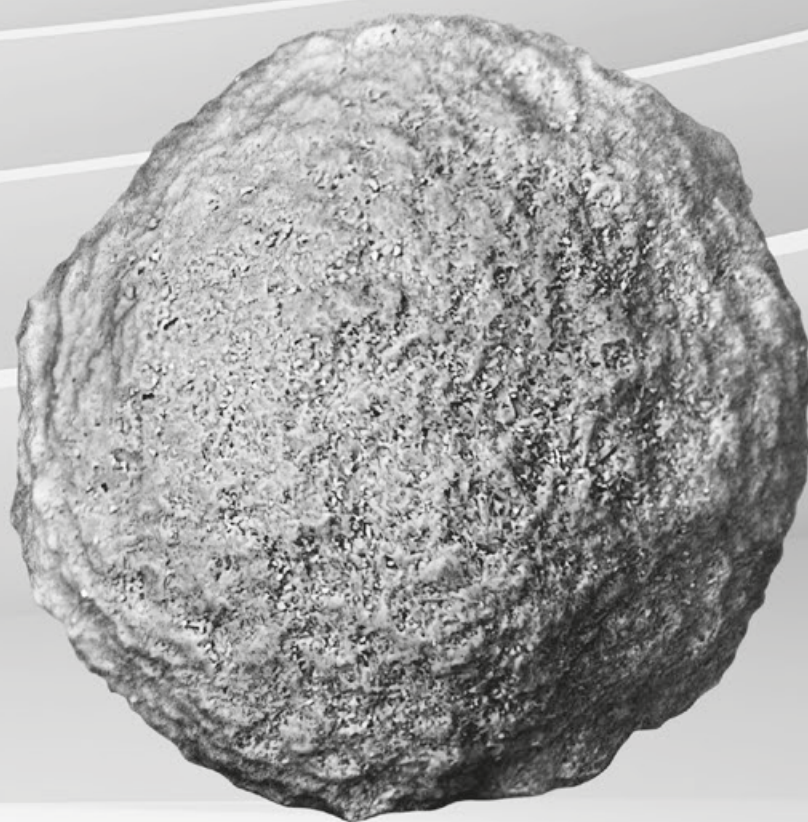


Special Sands





HA Special Sands - The problem solvers when it counts

Silica sand is used in the foundry as a base material for the production of moulds and cores. Silica sand can be combined with all known binders and guarantees a high quality of the moulds and cast parts produced with it.

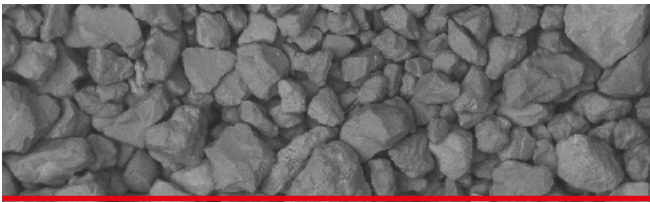
The special physical feature of Silica sand, its high thermal expansion in the range of 20°C to 600°C, can lead to casting defects in complicated castings i.e. sand expansion defects.

Primarily, these are veining, but also stress cracks, which cause increased fettling work and casting scrap. Veining can occur when using silica sand for core making with all known binders, with Cold-Box binders being particularly susceptible.

Sand expansion defects are possible with all casting materials, but cast iron, malleable cast iron and heavy metal casting are particularly susceptible.

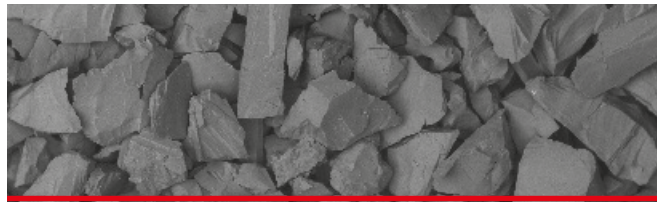
To avoid sand expansion defects, especially veining, the HA Group offers special sands as mould base materials which are characterised by low or very low linear expansion coefficients. These special sands differ from the well-known and widely used Chromite and Zircon sand.

The HA special sands offer a variety of other properties that can be used to achieve the best casting result.



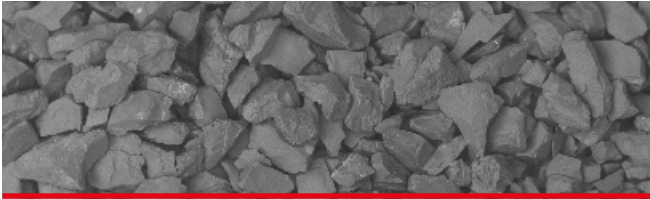
J-Sand

The quartz-feldspar sand from Sweden offers a significantly reduced coefficient of expansion. Good casting results can be achieved with adapted moulding material mixtures. Typical applications are water jacket cores and oil gallery cores.



M-Sand

Fused Mullite Sand with the highest thermal stability, for castings at extreme temperatures, safe moulding material to prevent metal - mould reactions, resistant to metal penetration.



Kerphalite KF

The andalusite sand convinces with its very low coefficient of expansion in all temperature ranges and its easy workability. Due to its mineralogical properties, it is suitable for high-temperature casting and has a very low tendency to metal - mould reactions. Due to its angular grain shape, it has an excellent effect against metal penetration.



Cerabeads

A Special Sand which has already written foundry history and is indispensable worldwide as a base moulding material. A sintered mullite sand in perfect spherical form, with the lowest coefficient of expansion, with a variety of grades and grain sizes that more than meets all requirements from hydraulic casting to 3-D-Sand Printing.



Bauxite-Sand

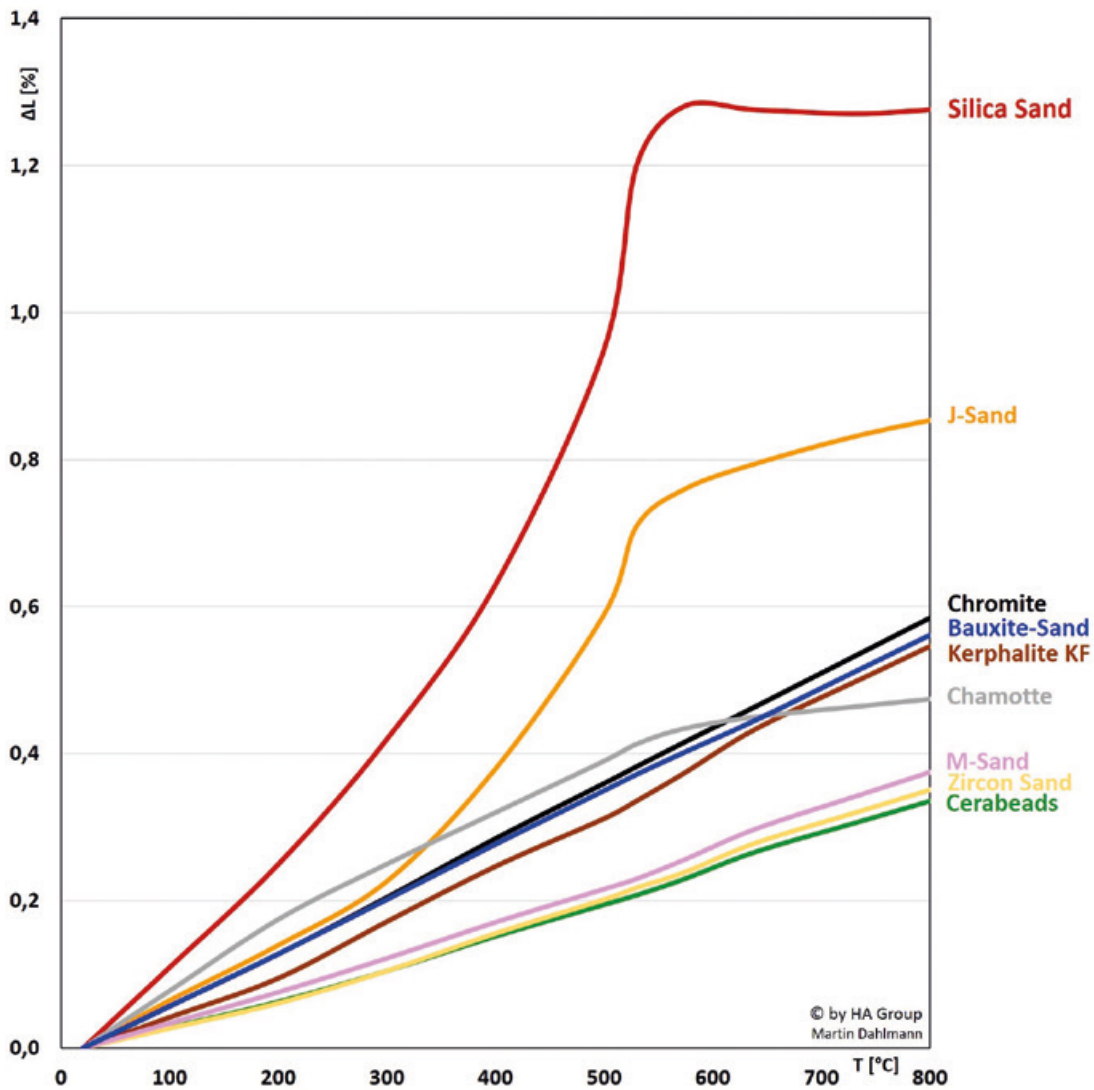
In addition to its very low expansion coefficient, this fused Bauxite-Sand convinces with its perfect spherical grain shape. With this sand, you produce a moulding material with an extremely high flowability and thus the highest mould filling capacity with simultaneously low sand expansion, high thermal stability with the lowest use of binding agents.



Chromite-Sand

For over 60 years, Chromite-Sand has been used as a mould base material in foundries around the world. Due to its properties, it is an indispensable mould material that ensures the high quality of the castings produced with it. Its high heat absorption capacity enables increased heat extraction from the casting (cooling effect). Due to its low coefficient of expansion, sand expansion defects are avoided.

Thermal expansion of the sands



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