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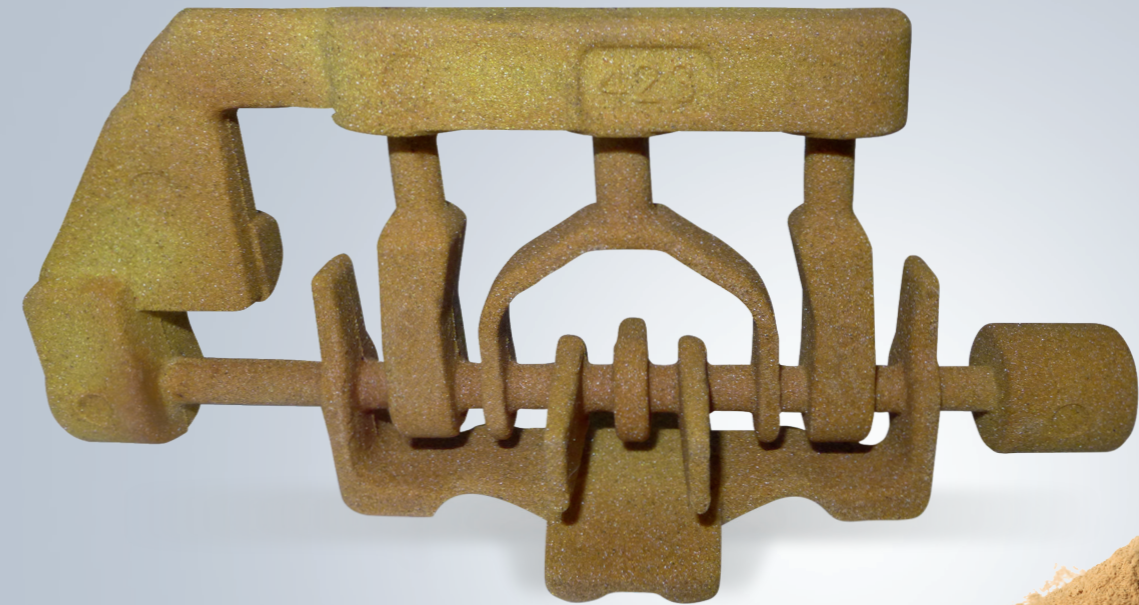
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## ASKRONING

Special pre-coated mold material for cores and molds exposed to high temperatures

This information is based on our current state of knowledge and does not represent assurance of the properties of the products described. We are only liable for product-related advice and information within the scope of disclosure included in collateral contractual agreements unless expressly agreed otherwise. (01/17)



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# The shell molding process

The shell molding process, which is also known by the name of its inventor as the Croning® process, is a core and mold making process that makes use of phenolic resin-coated dry, free-flowing mold materials which solidify around the pattern through hot curing. The wall strengths of these core and mold components can be adjusted depending on the requirements, enabling different product-specific requirements to be realized. The Croning® shell molding process is therefore especially suited to the manufacture of complex casting geometries made of nearly any casting alloy.

\* Croning® is a registered trademark of ACTech GmbH.



The shell molding process is especially suitable for the manufacture of:

- Thin-walled and delicate hollow cores and molds
- Cores that need to have very good disintegration properties due to a lack of apertures
- Cores that require high strengths



Advantages of the ASKRONING pre-coated sands:

- High dimensional accuracy
- Low wall strengths possible
- Production option of intricate casting contours
- Very good disintegration properties of the mold material
- Reduced cleaning costs
- Low molding sand consumption by hollow cores
- ASKRONING is suitable for all casting alloys
- Ready-to-use
- Long bench life of ASKRONING sands and of cores and molds manufactured with ASKRONING

## ASKRONING – pre-coated sands at a glance

### Service profile:

- Very good flowability and reproduction accuracy
- Good hot and cold bending strengths
- Good disintegration and good decoring ability
- Very good casting surfaces
- Good thermal stability and dimensional accuracy

### Areas of application:

- Gray cast iron
- Ductile iron
- Steel
- Aluminum/brass

### Very well suited to:

- Cores that are subject to maximum stress in the casting and solidification process
- Hydraulic casting
- Oil duct cores
- Cylinder head manufacture

### Packaging:

- 25 kg sacks
- 1,000 kg big bags
- 1,500 kg big bags
- Silo trucks

## Individual solutions

Thanks to our R&D departments we are in the position to develop ASKRONING pre-coated sands for specific requirements, tailoring them to customers' individual process demands. Consequently, taking into account the pre-existing process parameters, we can appropriately adjust the key properties of a high-grade pre-coated sand for whatever application.

### Characteristics:

- AFS number
- Loss on ignition
- Hot bending strength
- Cold bending strength
- Bulk density
- Melting point
- Nitrogen content



## Phenolic resin-bonded ASKRONING pre-coated sand special blends

Certain process requirements can necessitate the use of special sands. These special sands, compared to quartz sand, are characterized by other specific physical-thermal properties and, in particular, by the significantly lower thermal expansion behavior in certain temperature ranges. Thanks to our access to a large variety of special sands, we at ASK Chemicals are able to offer individually developed and adapted ASKRONING special pre-coated sand blends for specific requirements. Together with our technical service team and our R&D departments, we are therefore able to develop the most suitable ASKRONING for any application.