Morgan Advanced Materials

MOLTEN METAL SYSTEMS

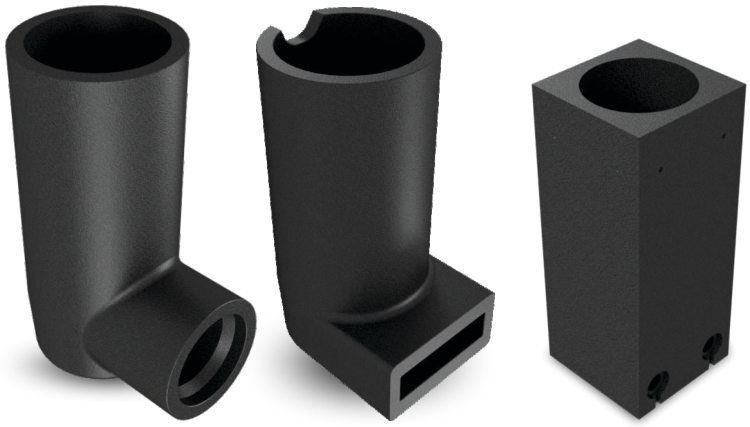
MORGANITE® ACE Continuous Casting Crucible

High erosion resistance and excellent thermal conductivity

Designed and manufactured using ISO press technology, our Morganite ACE Continuous Casting Crucibles are customized to meet your plant process. Our materials offer better lifecycle performance and reliable heat management throughout the casting process. Morganite ACE Continuous Casting Crucible provides an improved total cost of ownership through value, reliability and consistent product performance.

Morganite Ace Continuous Casting Crucibles are isostatically pressed carbon-bonded silicon carbide products and their superior performance is specifically designed for high chemical erosion conditions in applications such as Bronze, Copper, Copper Alloys, and Aluminium Bronze Alloys.

The carbon content provides the Morganite ACE Continuous Casting Crucibles an excellent stability at high temperatures and are therefore particularly suitable for processes with frequently changing temperatures and high heating rates. These crucibles are finished with a black oxidation protection (OBA) coating and are available in a range of shapes and sizes.



Benefits

- Extended lifecycle resulting in more castings and less changeover
- Improved casting process and performance from customization
- Improved cost of ownership with improved energy, savings, reduced maintenance and lower metal loss

Performance Characteristics

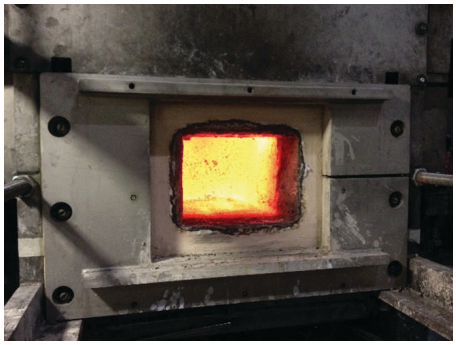
- Superior erosion resistance
- Excellent thermal shock resistance
- High mechanical strength
- High consistent density
- Metal casting temperatures from 1000°C -1400°C (1832°F -2552°F)

Features

- Advanced ISO press technology
- Custom formulation extends lifecycle
- Advanced composition maximizes casting performance
- Applications Engineering to support performance material and crucible design

MORGANITE ACE
Engineering Superior Performance

Case Study - Lifetime improvement of 33%



Application

Continuous Casting of Aluminium Bronze and Tin Bronze
Maximum Operating Temperature: 1250°C (2282°F)

Customer Challenge:

- Shorter crucible life
- High labour costs for crucible handling
- Need to improve finished goods output

The existing continuous casting crucible being used in the process had a service life of 3 weeks. Erosion and oxidation of the crucible was leading to metal leakage.

The crumbling of the material indicating oxidation on the boss.

The erosion from the metal flow resulting in thinning of the crucible lining.

Morgan Solution:

The unique formulation and optimized glazing system resulted in a crucible structure that remained unoxidized.

After a 4 week trial, the MMS crucible showed minimal oxidation on the upper rim.

No signs of erosion or significant oxidation are visible.

Based on the current performance, MMS recommended a higher service life of 6 weeks to the customer

Increased erosion and oxidation resistance

Reduced labor costs due to less crucible changeover

Longer lifecycle

For all enquiries, please contact us: mms.marketing@morganplc.com

Molten Metal Systems is a business of Morgan Advanced Materials

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