# **Copper Base Alloy Gas Defect Case Study**

# **Customer Name**

**Amey Alloys** 

# Defect

**Gas Porosity / Inclusion** 

# **Casting Details**

#### Casting Grade : ALUMINIUM BRONZE

- •Casting Weight : 0.4 Kg (Approx Good Casting)
- •Moulding Process : Co<sub>2</sub>

# **Objectives**

- To avoid the gas defects in aluminium bronze casting
- To minimize the molten metal related defects
- To increase productivity
- To minimize melting loss

# **Ceraflux Solution**

- CERAFLUX AB2 : For eliminating sluggish pouring
- DEGASS 100 : For removing the hydrogen from melt
- CERAPACK DS2 : As a deoxidizing agent for copper & copper alloy
- SLAGBOND 30 M : For co-agulation of removing slag from molten metal

# Work procedure for 100 Kg molten metal

- 1Kg (1% of molten metal) CERAFLUX AB2 is added at three stages (with Scrap-Solid + Liquid State and Liquid State)
- 0.2% i.e., 200 gm DEGASS 100 Tablets added and degassing continued till the bubbling reaction stopped
- Test block taken for confirmation of complete degassing (Gas free metal) (75 mm height & 50 mm Diameter)
- Added SLAGBOND 30 M 0.1% i.e., 100 gm
- Dross removed
- Surface of molten metal is covered with 0.333 kg CERAFLUX AB2 after ensuring of test block. Small amount of Slagbond 30 M is sprinkled, rabbled properly & removed the dross.
- Added 4 nos CERAPACK DS2 tubes at bottom of laddle then pour molten metal from furnace on it (1 tube for 25 kg)
- Took test block for confirmation of metal & after confirmation, molten metal is poured in mould immediately.

Results





For more case studies and casting defect solutions please reach us on info@ceraflux.com & techservice@thermochem.in **CERAFLUX INDIA PVT LTD.** 

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