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BT ORE (High Finish White Metal)

Product Data Sheet

BT ORE Low Melt 350F, Castable White Metal that polishes to a silver finish. With this Non Lead Metal, parts are easily made using a Silicone RTV Mold: Melt alloy, pour it into a Silicone RTV Mold and allow cast to cool before de-molding. This material is ideal for jewelry, belt buckles, doorknobs, or any part requiring a metal part.

Available Sizes: Sold in Ingots of 1 ½ to 2 lbs each

PHYSICAL DESCRIPTION AND PROPERTIES

Alloy: Bismuth/Tin (Non Lead)

Color: Brilliant White

Specific Gravity: (9.01) 0.34/lb./cu.in.)

Shore Hardness: 92D

Tensile Strength: 8000 psi

Coefficient Thermal Expansion in/c: .000015

Shrinkage: 0.0001

Thermal Conductivity cal/cm2/c/sec: 0.09

Conductivity: 7.77% (Compared to Copper)

Tin Ore: 60% Tin Alloy

Color: High Polish White

Reactivity Data

Melt Temperature: 310F

Casting Temperature: 350F

Molds to Use:

For optimal performance, *Platinum Base Silicone RTV* works best because of its high temperature resistance—600F, but Tin Base RTV will work for smaller, thinner pieces under 1/2 inch thickness.

Processing Directions:

Heat metal in a temperature controlled cooker till liquid—350F—*Teflon Coated Wok works well*. Use a stainless steel ladle for portioning. Pre-dust silicone molds with *Prolite FR* or Talc powder. Pre-heat molds to 250F or recycle first cast until desired surface finish is the result of cast. Once cooled, BT ORE can be polished to a high-quality finish.

Finishing:

Sealers must be applied to avoid oxidation. Various sealers are used from automotive wax to a lacquer base paint. Pre-test any paints for adhesion prior to production.

CAUTION:

Handling this material requires the use of proper heat resistant work gear: Face Shield, Gloves, and Apron. Take precaution to cover any exposed body parts from hot metal.

THE INFORMATION AND DATA CONTAINED HEREIN ARE BASED ON INFORMATION WE BELIEVE RELIABLE. EACH USER OF THE MATERIAL SHOULD THOROUGHLY TEST ANY APPLICATION AND INDEPENDENTLY CONCLUDE SATISFACTORY PERFORMANCE BEFORE COMMERCIALIZING. SUGGESTIONS OF USES SHOULD NOT BE TAKEN AS INDUCEMENTS TO INFRINGE ON ANY PARTICULAR PATENT.