

BT ORE

(High Finish White Metal)

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.

Physical and Handling Properties

Property	Value
Alloy	Bismuth/Tin (non-lead)
Color	Brilliant White
Specific Gravity	9.01 3in ³ /lb
Shore D Hardness	92
Tensile Strength, psi	8,000
Coefficient Thermal Expansion, in/c	0.00015
Shrinkage	0.001
Thermal Conductivity, cal/cm ² /c/sec	0.09
Conductivity (compared to Copper)	7.77%

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 at 350°F in a temperature-controlled cooker until liquified—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 precautions to cover any exposed body parts from molten/hot metal.

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