

Data Sheet

Alloy 25AT Large Diameter Forged Rings

Brush Wellman's Alloy 25AT large diameter forged rings are a copper beryllium alloy designed for use in heavy industrial machinery requiring plain bearings with high strength, low friction, wear resistance, corrosion resistance and good thermal conductivity.

CHEMICAL COMPOSITION (weight percent)

| Alloy | Beryllium | Co+Ni | Co+Ni+Fe | Copper |
|----------|-----------|----------|----------|---------|
| Alloy 25 | 1.8 – 2.0 | 0.20 Min | 0.60 Max | Balance |

PHYSICAL PROPERTIES

| Elastic Modulus | Poisson's Ratio | Coefficient of Thermal Expansion | Density | Thermal Conductivity |
|-----------------|-----------------|----------------------------------|------------------------|----------------------|
| 131 GPa | 0.3 | 17×10^{-6} m/m/°C | 8.36 g/cm ³ | 105 W/m/K |

TYPICAL MECHANICAL PROPERTIES

| 0.2% Offset Yield Strength | Ultimate Tensile Strength | Elongation | Hardness | Impact Strength |
|----------------------------|---------------------------|------------|----------|-----------------|
| (MPa) | (MPa) | (%) | (HB) | (J) |
| 620-896 | 827-1140 | 3-12 | 258-371 | 15-25 |

STANDARD AVAILABILITY

Outside Diameter: 1.500 mm Max
Length: 300 mm
Weight: 250 kg



SPECIFICATIONS

UNS C17200, ASTM B 570

RELATED INFORMATION

Additional information on Alloy 25AT large diameter forged rings availability, size capability and property combinations and pricing can be obtained by calling +49 (0) 711-830-930

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Health and Safety

Handling Alloy 25AT large diameter forged rings in solid form poses no special health risk. Like many industrial materials, beryllium-containing materials may pose a health risk if recommended safe handling practices are not followed. Inhalation of airborne beryllium may cause a serious lung disorder in susceptible individuals. The Occupational Safety and Health Administration (OSHA) has set mandatory limits on occupational respiratory exposures. Read and follow the guidance in the Material Safety Data Sheet (MSDS) before working with this material. For additional information on safe handling practices or technical data on Alloy 25AT large diameter forged rings, contact Brush Wellman Inc., +49 (0) 711-830-930

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