

Molybdenum Cylindrical Crucible

Formula: Mo

Capacity: 20ml

Outside Diameter: 33mm

Inside Diameter: 31mm

Height: 29mm

CAS Number: 7439-98-7

UOM Code: 701-509-46

SKU: 1000132391-group

Product Code: MO00-CB-000120

Material Properties for Metals

Atomic Properties

| Element | Value |
|---|------------------------------------|
| Atomic number | 42 |
| Crystal structure | Body centred cubic |
| Electronic structure | Kr 4d ⁵ 5s ¹ |
| Valences shown | 2, 3, 4, 5, 6 |
| Atomic weight(amu) | 95.94 |
| Thermal neutron absorption cross-section(Barns) | 2.65 |
| Photo-electric work function(eV) | 4.2 |
| Natural isotope distribution(Mass No./%) | 95/ 15.9 |
| Natural isotope distribution(Mass No./%) | 96/ 16.7 |
| Natural isotope distribution(Mass No./%) | 98/ 24.1 |
| Natural isotope distribution(Mass No./%) | 97/ 9.6 |
| Natural isotope distribution(Mass No./%) | 92/ 14.8 |
| Natural isotope distribution(Mass No./%) | 94/ 9.3 |
| Natural isotope distribution(Mass No./%) | 100/ 9.6 |
| Atomic radius - Goldschmidt(nm) | 0.14 |
| Ionisation potential(No./eV) | 2/ 16.15 |
| Ionisation potential(No./eV) | 5/ 61.2 |
| Ionisation potential(No./eV) | 68 |
| Ionisation potential(No./eV) | 1/ 7.10 |
| Ionisation potential(No./eV) | 3/ 27.2 |

| Element | Value |
|--------------------------------|---------|
| Ionisation potential(No./eV) | 4/ 46.4 |

Mechanical Properties

| Element | Value |
|---|---------|
| Material condition | Hard |
| Material condition | Soft |
| Poisson's ratio | 0.293 |
| Poisson's ratio | 0.293 |
| Bulk modulus(GPa) | 261.2 |
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| Tensile modulus(GPa) | 324.8 |
| Tensile modulus(GPa) | 324.8 |
| Hardness - Vickers(kgf mm ²) | 250 |
| Hardness - Vickers(kgf mm ²) | 200 |
| Tensile strength(MPa) | 485-550 |
| Tensile strength(MPa) | 620-690 |
| Yield strength(MPa) | 550 |
| Yield strength(MPa) | 415-450 |

Electrical Properties

| Element | Value |
|---|-----------------|
| Electrical resistivity(μOhmcm) | 5.7@20@20°C |
| Superconductivity critical temperature(K) | 0.915 |
| Temperature coefficient(K ⁻¹) | 0.00435@0-100°C |
| Thermal emf against Pt (cold 0C - hot 100C)(mV) | 1.45 |

Physical Properties

| Element | Value |
|-----------------------------|------------|
| Boiling point(C) | 4612 |
| Density(gcm ³) | 10.22@20°C |

Thermal Properties

| Element | Value |
|---|-------------|
| Melting point(C) | 2617 |
| Latent heat of evaporation(J g ⁻¹) | 6153 |
| Latent heat of fusion(J g ⁻¹) | 290 |
| Specific heat(J K ⁻¹ kg ⁻¹) | 251@25°C |
| Thermal conductivity(W m ⁻¹ K ⁻¹) | 138@0-100°C |

| Element | Value |
|---|--------------|
| Coefficient of thermal expansion($\times 10^{-6} \text{ K}^{-1}$) | 5.1@0-100°C |