

# Zirconium

## High Purity Metal

### Characteristics

- ✓ Corrosion-resistant
- ✓ Low density
- ✓ High stiffness
- ✓ High energy absorbance
- ✓ Low thermal conductivity
- ✓ Low magnetic permeability

### Quick Facts

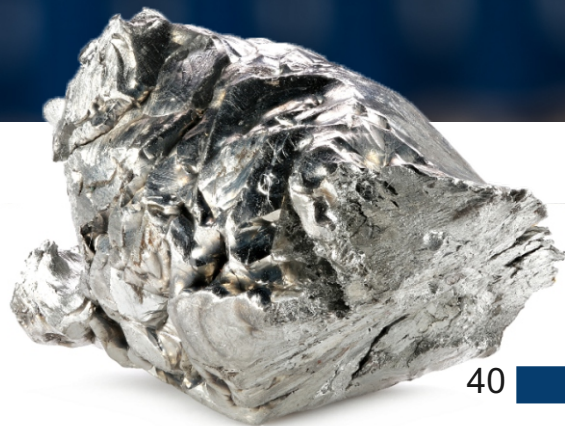
Molecular Formula	:	Zr
Molecular Weight	:	91.22 g/mol
Density	:	6.506 g/cm <sup>3</sup>
Melting Point	:	1852 °C
Boiling Point	:	3580 °C
Thermal Conductivity	:	0.227W/(mK)
Electrical Resistivity	:	40.0 nΩm (at 20 °C)
Thermal Expansion	:	5.7µm/(mK) (at 25 °C)
Young's Modulus	:	88GPa
Specific Heat	:	0.0671 Cal/g/K @ 25 oC °C

**Purity : 99.9%**

**Zirconium** is a chemical element with the symbol Zr and atomic number 40. Zirconium alloys are widely used as nuclear fuel clad materials and core structures in water cooled nuclear power reactors due to its strong corrosion resistance properties and excellent low absorption cross-section for thermal neutrons. Zirconium is a very strong, malleable, ductile, lustrous silver-gray metal. Its chemical and physical properties are similar to those of titanium. Zirconium is extremely resistant to heat and corrosion. Zirconium is lighter than steel and its hardness is similar to copper. When it is finely divided, the metal can spontaneously ignite in air, especially at high temperatures

### Benefits

- ✓ Including heat exchangers
- ✓ Energy absorption
- ✓ Flow diffusion, and lightweight optics
- ✓ Used in nuclear applications
- ✓ Surgical instruments
- ✓ Glass for television
- ✓ The removal of residual gases from electronic vacuum tubes
- ✓ Hardening agent in alloys



40  
**Zr**  
91.224

## High Purity Zirconium

Available in:

**Pieces | Rods | Shots | Chips | Pellets | Wires | Ingots | Bars | Granules**



202ICE4589C



19ZAZG01274G



202ICE4588M

ISO 9001:2015  
CERTIFIED COMPANY

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