

## Zinc, Zn

**Categories:** [Metal](#); [Nonferrous Metal](#); [Zinc Alloy](#); [Pure Element](#)

**Material Applications:** corrosion protection (galvanization), architectural, automotive, batteries, toys.

**Notes:** This entry is for pure Zn. A wide range of zinc alloys is also included in MatWeb.

**Key Words:** EN 988 (Min. 99.99%) is a common sheet spec.

**Vendors:** No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	7.10 g/cc	0.257 lb/in <sup>3</sup>	

Chemical Properties	Metric	English	Comments
Atomic Mass	65.39	65.39	1995
Atomic Number	30	30	
Thermal Neutron Cross Section	1.06 barns/atom	1.06 barns/atom	
X-ray Absorption Edge	1.283 Å	1.283 Å	K
	10.33 Å	10.33 Å	L <sub>I</sub>
	11.8395 Å	11.8395 Å	L <sub>II</sub>
	12.1055 Å	12.1055 Å	L <sub>III</sub>
Electrode Potential	-0.760 V	-0.760 V	
Electronegativity	1.65	1.65	Pauling
Ionic Radius	0.740 Å	0.740 Å	Crystal Ionic Radius for Valence +2
	0.880 Å	0.880 Å	Crystal Ionic Radius for Valence +1
Electrochemical Equivalent	1.219 g/A/h	1.219 g/A/h	

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	30	30	
Tensile Strength, Ultimate	37.0 MPa	5370 psi	cast sample
Modulus of Elasticity	96.5 GPa	14000 ksi	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.000005916 ohm-cm	0.000005916 ohm-cm	
Magnetic Susceptibility	-1.74e-7	-1.74e-7	cgs/g
Critical Magnetic Field Strength, Oersted	53.97 - 54.03	53.97 - 54.03	
Critical Superconducting Temperature	0.840 - 0.860 K	0.840 - 0.860 K	

Thermal Properties	Metric	English	Comments
Heat of Fusion	110 J/g	47.3 BTU/lb	
Heat of Vaporization	1754 J/g	754.6 BTU/lb	
CTE, linear	31.2 µm/m-°C	17.3 µin/in-°F	
	@Temperature 20.0 - 100 °C	@Temperature 68.0 - 212 °F	
Specific Heat Capacity	0.3898 J/g-°C	0.09316 BTU/lb-°F	
Thermal Conductivity	112.2 W/m-K	778.7 BTU-in/hr-ft <sup>2</sup> -°F	
Melting Point	419.58 °C	787.24 °F	
Boiling Point	907 °C	1660 °F	

<b>Optical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Emissivity (0-1)	0.050 @Temperature 300 °C	0.050 @Temperature 572 °F	unoxidized or oxidized

<b>Component Elements Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Zinc, Zn	100 %	100 %	

### **Descriptive Properties**

CAS Number	7440-66-6
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[References](#) for this datasheet.

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.