



Beryllium Aluminum Alloy 910

Physical Properties	Metric	English
Density	2.17 g/cc	0.0784 lb/in ³
Mechanical Properties	Metric	English
Tensile Strength, Ultimate	207 MPa	30000 psi
Tensile Strength, Yield	158 MPa @Strain 0.200 %	22900 psi @Strain 0.200 %
Elongation at Break	4.0 %	4.0 %
Tensile Modulus	192 GPa	27800 ksi
	193 GPa	28000 ksi
Compressive Yield Strength	147 MPa	21300 psi
Poissons Ratio	0.154	0.154
Fatigue Strength	117 MPa @# of Cycles 1.00e+7	17000 psi @# of Cycles 1.00e+7
Fracture Toughness	7.30 - 14.6 MPa-m ^{1/2}	6.64 - 13.3 ksi-in ^{1/2}
Shear Modulus	84.0 GPa	12200 ksi
Shear Strength	181 MPa	26300 psi
Thermal Properties	Metric	English
CTE, linear	14.6 µm/m-°C @Temperature 20.0 °C	8.11 µin/in-°F @Temperature 68.0 °F
	16.0 µm/m-°C @Temperature 250 °C	8.89 µin/in-°F @Temperature 482 °F
	18.2 µm/m-°C @Temperature 500 °C	10.1 µin/in-°F @Temperature 932 °F
Specific Heat Capacity	1.56 J/g-°C	0.373 BTU/lb-°F
Thermal Conductivity	110 W/m-K	763 BTU-in/hr-ft ² -°F
Component Elements Properties	Metric	English
Aluminum, Al	38 %	38 %
Beryllium, Be	57 - 63 %	57 - 63 %
Iron, Fe	<= 0.30 %	<= 0.30 %
Nickel, Ni	2.1 - 3.4 %	2.1 - 3.4 %
Oxygen, O	<= 0.24 %	<= 0.24 %
Silicon, Si	<= 0.50 %	<= 0.50 %

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