

## Kaiser 7068 T6, T651 Rod & Bar

Category : Metal , Nonferrous Metal , Aluminum Alloy , 7000 Series Aluminum Alloy

### Material Notes:

Alloy 7068 offers some of the highest strength mechanical properties available in an extruded product. Intended for aerospace, ordnance and light weight recreational applications where extremely high strength is required. Property levels are typically in the 100 ksi range for ultimate strengths. AMS 4331

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Kaiser-7068-T6-T651-Rod-Bar.php](http://www.lookpolymers.com/polymer_Kaiser-7068-T6-T651-Rod-Bar.php)

Physical Properties	Metric	English	Comments
Density	2.85 g/cc	0.103 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	185	185	500 kg, 10 mm
Tensile Strength, Ultimate	698 MPa @Diameter 12.7 mm	101000 psi @Diameter 0.500 in	
Tensile Strength, Yield	648 MPa @Diameter 12.7 mm	94000 psi @Diameter 0.500 in	
Elongation at Break	9.0 % @Diameter 12.7 mm	9.0 % @Diameter 0.500 in	4D

Thermal Properties	Metric	English	Comments
CTE, linear	23.4 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Temperature 20.0 - 100 $\text{Å}^\circ\text{C}$	13.0 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Temperature 68.0 - 212 $\text{Å}^\circ\text{F}$	
Specific Heat Capacity	1.05 J/g- $\text{Å}^\circ\text{C}$ @Temperature 100 $\text{Å}^\circ\text{C}$	0.250 BTU/lb- $\text{Å}^\circ\text{F}$ @Temperature 212 $\text{Å}^\circ\text{F}$	
Melting Point	476 - 635 $\text{Å}^\circ\text{C}$	889 - 1180 $\text{Å}^\circ\text{F}$	
Solidus	476 $\text{Å}^\circ\text{C}$	889 $\text{Å}^\circ\text{F}$	
Liquidus	635 $\text{Å}^\circ\text{C}$	1180 $\text{Å}^\circ\text{F}$	

Component Elements Properties	Metric	English	Comments
Aluminum, Al	85.48 - 88.85 %	85.48 - 88.85 %	As Balance
Chromium, Cr	<= 0.050 %	<= 0.050 %	

Component Elements Properties	Metric	English	Comments
Iron, Fe	<= 0.15 %	<= 0.15 %	
Magnesium, Mg	2.2 - 3.0 %	2.2 - 3.0 %	
Manganese, Mn	<= 0.10 %	<= 0.10 %	
Other, each	<= 0.050 %	<= 0.050 %	
Other, total	<= 0.15 %	<= 0.15 %	
Silicon, Si	<= 0.12 %	<= 0.12 %	
Titanium, Ti	<= 0.10 %	<= 0.10 %	
Zinc, Zn	7.3 - 8.3 %	7.3 - 8.3 %	
Zirconium, Zr	0.050 - 0.15 %	0.050 - 0.15 %	

Descriptive Properties	Value	Comments
Volumetric CTE $\text{m}^3/\text{m}^3\text{-K}$	0.000068	68°F/20°C

## Contact Songhan Plastic Technology Co.,Ltd.

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