

Osprey Metals CE17 Al-Si Controlled Expansion Alloy

Category : Metal , Nonferrous Metal , Aluminum Alloy

Material Notes:

Al-27%Si controlled expansion alloy manufactured and patented by Osprey Metals Ltd. Information provided to MatWeb by Osprey Metals.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Osprey-Metals-CE17-Al-Si-Controlled-Expansion-Alloy.php

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	160 MPa	23200 psi	
Tensile Strength, Yield	110 MPa	16000 psi	
Modulus of Elasticity	80.0 GPa	11600 ksi	
Flexural Strength	210 MPa	30500 psi	Three Point Bend

Thermal Properties	Metric	English	Comments
CTE, linear	15.3 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	8.50 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 25.0 - 100 $^\circ\text{C}$	@Temperature 77.0 - 212 $^\circ\text{F}$	
	16.8 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	9.33 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 25.0 - 500 $^\circ\text{C}$	@Temperature 77.0 - 932 $^\circ\text{F}$	
	17.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	9.44 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 25.0 - 200 $^\circ\text{C}$	@Temperature 77.0 - 392 $^\circ\text{F}$	
	17.7 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	9.83 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	
	@Temperature 25.0 - 300 $^\circ\text{C}$	@Temperature 77.0 - 572 $^\circ\text{F}$	
Specific Heat Capacity	0.8463 J/g- $^\circ\text{C}$	0.2023 BTU/lb- $^\circ\text{F}$	
Thermal Conductivity	151.2 W/m-K	1049 BTU-in/hr-ft ² - $^\circ\text{F}$	
	@Temperature 200 $^\circ\text{C}$	@Temperature 392 $^\circ\text{F}$	
	177.4 W/m-K	1231 BTU-in/hr-ft ² - $^\circ\text{F}$	
	@Temperature 25.0 $^\circ\text{C}$	@Temperature 77.0 $^\circ\text{F}$	

Component Elements Properties	Metric	English	Comments
Aluminum, Al	73 %	73 %	
Silicon, Si			

Component Elements Properties	27 % Metric	27 % English	Comments
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