

## PEAK Werkstoff DISPAL S226 Aluminum Alloy, AlSi30CuMg, Condition T6

Category : Metal , Nonferrous Metal , Aluminum Alloy

### Material Notes:

Heat Treatment Condition T6 (Quench in water at RT)abrasive stabilityhigh stiffness (E-modulus)resistance even at high temperaturesgood grindabilityPEAK DISPAL materials allow the manufacturing of pistons for highest operational demands.Information provided by PEAK Werkstoff GmbH

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PEAK-Werkstoff-DISPAL-S226-Aluminum-Alloy-AlSi30CuMg-Condition-T6.php](http://www.lookpolymers.com/polymer_PEAK-Werkstoff-DISPAL-S226-Aluminum-Alloy-AlSi30CuMg-Condition-T6.php)

Physical Properties	Metric	English	Comments
Density	2.4605 - 2.7195 g/cc	0.088891 - 0.098248 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Vickers	>= 160	>= 160	
Tensile Strength at Break	>= 348 MPa	>= 50500 psi	
	@Temperature 150 °C	@Temperature 302 °F	
Tensile Strength, Yield	>= 380 MPa	>= 55100 psi	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Elongation at Break	>= 0.40 %	>= 0.40 %	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Modulus of Elasticity	>= 81.0 GPa	>= 11700 ksi	
	@Temperature 150 °C	@Temperature 302 °F	
Poissons Ratio	>= 88.0 GPa	>= 12800 ksi	
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Poissons Ratio	0.297	0.297	
	@Temperature 20.0 °C	@Temperature 68.0 °F	

Mechanical Properties	0.297 Metric	0.297 English	Comments
	@Temperature 100 °C	@Temperature 212 °F	
	0.299	0.299	
	@Temperature 150 °C	@Temperature 302 °F	
	0.302	0.302	
	@Temperature 200 °C	@Temperature 392 °F	
	0.302	0.302	
	@Temperature 250 °C	@Temperature 482 °F	
	0.305	0.305	
	@Temperature 300 °C	@Temperature 572 °F	
Shear Modulus	32.0 GPa	4640 ksi	
	@Temperature 300 °C	@Temperature 572 °F	
	33.0 GPa	4790 ksi	
	@Temperature 250 °C	@Temperature 482 °F	
	34.0 GPa	4930 ksi	
	@Temperature 150 °C	@Temperature 302 °F	
	34.0 GPa	4930 ksi	
	@Temperature 200 °C	@Temperature 392 °F	
	35.0 GPa	5080 ksi	
	@Temperature 100 °C	@Temperature 212 °F	
	36.0 GPa	5220 ksi	
	@Temperature 20.0 °C	@Temperature 68.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	15.4 - 16.4 $\mu\text{m}/\text{m}\cdot\text{°C}$	8.56 - 9.11 $\mu\text{in}/\text{in}\cdot\text{°F}$	
	@Temperature 20.0 - 100 °C	@Temperature 68.0 - 212 °F	
	15.6 - 16.6 $\mu\text{m}/\text{m}\cdot\text{°C}$	8.67 - 9.22 $\mu\text{in}/\text{in}\cdot\text{°F}$	
	@Temperature 20.0 - 200 °C	@Temperature 68.0 - 392 °F	
	16.3 - 17.3 $\mu\text{m}/\text{m}\cdot\text{°C}$	9.06 - 9.61 $\mu\text{in}/\text{in}\cdot\text{°F}$	
	@Temperature 20.0 - 300 °C	@Temperature 68.0 - 572 °F	

Thermal Properties	Metric	English	Comments
	0.900 J/g-°C	0.205 - 0.215 BTU-in/hr-ft <sup>2</sup> -°F	
Thermal Conductivity	118.9 W/m-K @Temperature 400 °C	825.2 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 752 °F	
	123.6 W/m-K @Temperature 200 °C	857.8 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 392 °F	
	123.8 W/m-K @Temperature 300 °C	859.2 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 572 °F	
	126.5 W/m-K @Temperature 100 °C	877.9 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 212 °F	
	131.6 W/m-K @Temperature 30.0 °C	913.3 BTU-in/hr-ft <sup>2</sup> -°F @Temperature 86.0 °F	
Melting Point	537 - 833 °C	999 - 1530 °F	
Solidus	537.1 - 543.1 °C	998.8 - 1010 °F	
Liquidus	826.5 - 832.5 °C	1520 - 1531 °F	

Component Elements Properties	Metric	English	Comments
Aluminum, Al	68 %	68 %	As Balance
Copper, Cu	1.0 %	1.0 %	
Magnesium, Mg	1.0 %	1.0 %	
Silicon, Si	30 %	30 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.00000660 - 0.00000700 ohm-cm	0.00000660 - 0.00000700 ohm-cm	

## Contact Songhan Plastic Technology Co.,Ltd.

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