

Arkema Group Oroglas® V 825 HID Acrylic, UV, Heat Resistant (discontinued **)

Category : Polymer , Thermoplastic , Acrylic (PMMA) , Acrylic, UV Stabilized, Molded

Material Notes:

OROGLAS HID is an acrylic resin formulated to withstand continuous exposure to high intensity discharge (HID) sources up to 90°C. Above 80°C, OROGLAS V 825 HID resin retains its original appearance while other plastics typically used in HID lighting yellow. OROGLAS V 825 HID is specifically designed to be used at the highest acrylic UL relative thermal index, 90°C. The excellent balance of mechanical, thermal and optical properties are the same as OROGLAS V 825 T resins. When applications require stability to intense UV light at temperatures above 80°C, OROGLAS V 825 HID deliver superior long term performance. Typically the most demanding lighting applications use high intensity discharge sources. OROGLAS V 825 HID can be used in any lighting application. It may be a wise choice for certain compact fluorescent or incandescent fixtures where the lens is close to the lamp. OROGLAS V 825 HID is recognized under all UL component listings and carries a 90°C RTI, the highest of Arkema, formed in 2004, was formerly Atofina Chemicals and before that Elf Atochem.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Arkema-Group-Oroglas-V-825-HID-Acrylic-UV-Heat-Resistant-nbspdiscontinued-.php

Physical Properties	Metric	English	Comments
Density	1.19 g/cc	0.0430 lb/in³	
Water Absorption	1.9 %	1.9 %	
Moisture Absorption at Equilibrium	0.30 %	0.30 %	Humidity Absorption
Melt Flow	3.7 g/10 min @Load 3.80 kg, Temperature 230 °C	3.7 g/10 min @Load 8.38 lb, Temperature 446 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	85.0 MPa	12300 psi	50 mm/min
Elongation at Break	6.0 %	6.0 %	Nominal Strain; 50 mm/min
Tensile Modulus	3.30 GPa	479 ksi	1 mm/min
Charpy Impact Unnotched	2.00 J/cm²	9.52 ft-lb/in²	
Charpy Impact, Notched	0.200 J/cm²	0.952 ft-lb/in²	
Tensile Creep Modulus, 1 hour	2700 MPa	392000 psi	
Tensile Creep Modulus, 1000 hours	1800 MPa	261000 psi	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	65.0 µm/m-°C	36.1 µin/in-°F	

Thermal Properties	@Temperature 20.0 °C Metric	@Temperature 68.0 °F English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	102 °C	216 °F	
Deflection Temperature at 1.8 MPa (264 psi)	98.0 °C	208 °F	
Vicat Softening Point	104 °C	219 °F	50°C/hr; 50N
Flammability, UL94	HB @Thickness 1.60 mm	HB @Thickness 0.0630 in	

Optical Properties	Metric	English	Comments
Transmission, Visible	80 %	80 %	Mfr. reports 'Transparent' but doesn't quantify.

Electrical Properties	Metric	English	Comments
Electrical Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	
Surface Resistance	1.00e+14 ohm	1.00e+14 ohm	
Dielectric Constant	3.2 @Frequency 1e+6 Hz	3.2 @Frequency 1e+6 Hz	
	3.7 @Frequency 100 Hz	3.7 @Frequency 100 Hz	
Dielectric Strength	19.7 kV/mm	500 kV/in	
Dissipation Factor	0.040 @Frequency 1e+6 Hz	0.040 @Frequency 1e+6 Hz	
	0.050 @Frequency 100 Hz	0.050 @Frequency 100 Hz	
Comparative Tracking Index	600 V	600 V	

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