

VECTRA® A435

Liquid Crystal Polymer
Celanese Corporation

Message:

Best High Current Arc Ignition (HAI) performance. Glass/PTFE filled.
Chemical abbreviation according to ISO 1043-1 : LCP
Inherently flame retardant
FDA compliant version available.
UL-Listing V-0 in natural at 044mm thickness per UL 94 flame testing.
Relative-Temperature-Index (RTI) according to UL 746B: electrical 130°C, mechanical 130°C.
UL = Underwriters Laboratories (USA)

General Information			
UL YellowCard	E83005-251002		
Filler / Reinforcement	Glass fiber reinforced material		
Additive	PTFE lubricant		
Features	Flame retardancy		
RoHS Compliance	Contact manufacturer		
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)		
	Shear Modulus vs. Temperature (ISO 11403-1)		
Resin ID (ISO 1043)	LCP		
Physical	Nominal Value	Unit	Test Method
Density	1.62	g/cm³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	0.40	%	ISO 294-4
Flow direction	0.10	%	ISO 294-4
Water Absorption (Equilibrium, 23°C, 50% RH)	2.0E-3	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (M-Scale)	55		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	11000	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	171	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	3.3	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	10500	MPa	ISO 178
Flexural Stress (23°C)	206	MPa	ISO 178
Compressive Modulus	10500	MPa	ISO 604
Compressive Stress (1% Strain)	77.0	MPa	ISO 604
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	26	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	38	kJ/m²	ISO 179/1eU

Notched Izod Impact (23°C)	17	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength (23°C)	33	kJ/m ²	ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	250	°C	ISO 75-2/B
1.8 MPa, not annealed	230	°C	ISO 75-2/A
8.0 MPa, not annealed	162	°C	ISO 75-2/C
Vicat Softening Temperature	146	°C	ISO 306/B50
Melting Temperature ¹	280	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	1.0E-6	cm/cm/°C	ISO 11359-2
Lateral	1.9E-5	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Dielectric Strength	32	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	3.50		IEC 60250
1 MHz	3.10		IEC 60250
Dissipation Factor			IEC 60250
100 Hz	0.020		IEC 60250
1 MHz	0.016		IEC 60250
Arc Resistance	130	sec	Internal method
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	150	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.010	%	
Hopper Temperature	20.0 - 30.0	°C	
Rear Temperature	270 - 280	°C	
Middle Temperature	275 - 285	°C	
Front Temperature	280 - 290	°C	
Nozzle Temperature	290 - 300	°C	
Processing (Melt) Temp	285 - 295	°C	
Mold Temperature	80.0 - 120	°C	
Injection Pressure	50.0 - 150	MPa	
Injection Rate	Fast		
Holding Pressure	50.0 - 150	MPa	
Back Pressure	0.00 - 3.00	MPa	
Injection instructions			

Manifold Temperature: 285 to 295°C Zone 4 Temperature: 285 to 295°C Feed Temperature: 60 to 80°C

NOTE

1. 10°C/min

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co., Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



WECHAT