

NORYL™ RESIN N225X

REGION AMERICAS

DESCRIPTION

PPE+PS blend. Unfilled. Halogen-Free FR performance. UL94 V0/5VA. UL746C F1. Dielectric Strength. Suitable for E/E market indoor/outdoor applications.

TYPICAL PROPERTY VALUES

Revision 20180905

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	66	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	49	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	8	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	17	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	99	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2490	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	186	J/m	ASTM D 256
Izod Impact, notched, -30°C	96	J/m	ASTM D 256
Izod Impact, Reverse Notched, 3.2 mm	886	J/m	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	39	J	ASTM D 3763
Instrumented Impact Energy @ peak, -30	11	J	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	128	°C	ASTM D 1525
HDT, 0.45 MPa, 6.4 mm, unannealed	109	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	99	°C	ASTM D 648
Relative Temp Index, Elec	95	°C	UL 746B
Relative Temp Index, Mech w/impact	80	°C	UL 746B
Relative Temp Index, Mech w/o impact	95	°C	UL 746B
PHYSICAL			
Specific Gravity	1.11	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.5 – 0.7	%	SABIC method
ELECTRICAL			
Volume Resistivity	2.8E+16	Ohm-cm	ASTM D 257
Surface Resistivity	>1.E+14	Ohm	ASTM D 257
Dielectric Strength, in oil, 3.2 mm	16.2	kV/mm	ASTM D 149
Relative Permittivity, 50/60 Hz	2.69	-	ASTM D 150
Relative Permittivity, 1 MHz	2.55	-	ASTM D 150
Dissipation Factor, 50/60 Hz	0.01	-	ASTM D 150
Dissipation Factor, 1 MHz	0.007	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	6	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	1	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	4	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	0	PLC Code	UL 746A

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Comparative Tracking Index (UL) {PLC}	1	PLC Code	UL 746A
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating	0.4	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	1.47	mm	UL 94
UL Recognized, 94-5VA Rating	2.99	mm	UL 94
Radiant Panel Listing	<input checked="" type="checkbox"/>	-	UL Tested
UV-light, water exposure/immersion	F1	-	UL 746C
INJECTION MOLDING			
Drying Temperature	95 – 100	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 290	°C	
Nozzle Temperature	260 – 290	°C	
Front - Zone 3 Temperature	250 – 290	°C	
Middle - Zone 2 Temperature	240 – 280	°C	
Rear - Zone 1 Temperature	225 – 275	°C	
Mold Temperature	70 – 95	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	20 – 100	rpm	
Shot to Cylinder Size	30 – 70	%	
Vent Depth	0.038 – 0.051	mm	

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