NORYL™ RESIN PX500

REGION ASIA

DESCRIPTION

NORYL PX500 is an unfilled modified polyphenylene ether resin capable of multiple conversion routes. This resin is designed for lower odor during conversion than many standard modified PPE resins. NORYL PX500 provides an exceptional balance of high heat performance and dimensional stability with flow and may be an excellent material candidate for IC tray applications.

TYPICAL PROPERTY VALUES

Revision 20260330

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	71	MPa	ASTM D638
Tensile Stress, brk, Type I, 50 mm/min	56	MPa	ASTM D638
Tensile Strain, yld, Type I, 50 mm/min	5.4	%	ASTM D638
Tensile Strain, brk, Type I, 50 mm/min	35	%	ASTM D638
Tensile Modulus, 50 mm/min	2400	MPa	ASTM D638
Flexural Modulus, 1.3 mm/min, 50 mm span	2590	MPa	ASTM D790
Hardness, Shore D, 30S reading	82	-	ASTM D2240
Tensile Stress, yield, 50 mm/min	70	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	5.1	%	ISO 527
Tensile Strain, break, 50 mm/min	5.1	%	ISO 527
Tensile Modulus, 1 mm/min	2500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	110	MPa	ISO 178
Flexural Modulus, 2 mm/min	2530	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	80	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	58	J	ASTM D3763
Izod Impact, notched 80*10*4 +23°C	8	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	9	kJ/m²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	192	°C	ASTM D1525
HDT, 1.82 MPa, 3.2mm, unannealed	170	°C	ASTM D648
CTE, -40°C to 40°C, flow	7.1E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, xflow	7.9E-05	1/°C	ASTM E831
CTE, -40°C to 40°C, flow	7.1E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.9E-05	1/°C	ISO 11359-2
Vicat Softening Temp, Rate B/50	192	°C	ISO 306
Vicat Softening Temp, Rate B/120	193	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	169	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.06	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm	0.8 – 0.9	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.8 – 0.9	%	SABIC method
Density	1.06	g/cm³	ISO 1183
Water Absorption, (23°C/saturated)	0.23	%	ISO 62-1

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62
Melt Volume Rate			
320°C/5.0 kg	21	cm³/10 min	ISO 1133
INJECTION MOLDING			
Drying Temperature	110 – 120	°C	
Drying Time	3 – 4	Hrs	
Drying Time (Cumulative)	8	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	300 – 325	°C	
Nozzle Temperature	300 – 325	°C	
Front - Zone 3 Temperature	290 – 325	°C	
Middle - Zone 2 Temperature	275 – 320	°C	
Rear - Zone 1 Temperature	265 – 315	°C	
Mold Temperature	80 – 110	°C	
Back Pressure	0.3 – 0.7	MPa	
Screw Speed	20 – 100	rpm	
Shot to Cylinder Size	30 – 70	%	

MORE INFORMATION

For curve data and CAE cards, please visit and register at https://materialfinder.sabic-specialties.com

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