

NORYL™ RESIN PX1185

REGION EUROPE

DESCRIPTION

NORYL PX1185 resin is a non-reinforced blend of polyphenylene ether (PPE) + polystyrene (PS). This lubricated, impact modified, extrusion grade was developed for automotive trim applications and offers high heat resistance, good impact resistance, low specific gravity, and dimensional stability.

GENERAL INFORMATION	
Features	Heat Stabilized, Hydrolytic Stability, Low Warpage, Amorphous, Low Shrinkage, Low Moisture Absorption, Low Specific Gravity, Dimensional stability, Impact resistant, No PFAS intentionally added
Fillers	Unreinforced
Polymer Types	Polyphenylene Ether + PS (PPE+PS)
Processing Techniques	Injection Molding, Profile Extrusion
INDUSTRY	SUB INDUSTRY
Automotive	Automotive Exteriors

TYPICAL PROPERTY VALUES

Revision 20231109

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL ⁽¹⁾			
Tensile Stress, yield, 50 mm/min	30	MPa	ISO 527
Tensile Stress, break, 50 mm/min	35	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	2.5	%	ISO 527
Tensile Strain, break, 50 mm/min	55	%	ISO 527
Tensile Modulus, 1 mm/min	1500	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	45	MPa	ISO 178
IMPACT ⁽¹⁾			
Izod Impact, notched 80*10*4 +23°C	25	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	22	kJ/m ²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	8	kJ/m ²	ISO 179/1eA
THERMAL ⁽¹⁾			
Thermal Conductivity	0.22	W/m·°C	ISO 8302
CTE, 23°C to 80°C, flow	7.E-05	1/°C	ISO 11359-2
CTE, 23°C to 80°C, xflow	9.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	110	°C	ISO 306
Vicat Softening Temp, Rate B/120	120	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	115	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	105	°C	ISO 75/Ae
PHYSICAL ⁽¹⁾			
Mold Shrinkage on Tensile Bar, flow ⁽²⁾	0.5 – 0.7	%	SABIC method

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Density	1.06	g/cm ³	ISO 1183
Water Absorption, (23°C/saturated)	0.19	%	ISO 62-1
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62
Melt Volume Rate, MVR at 280°C/10.0 kg	12	cm ³ /10 min	ISO 1133
ELECTRICAL ⁽¹⁾			
Volume Resistivity	1.E+15	Ω.cm	IEC 60093
Relative Permittivity, 1 MHz	2.6	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.0004	-	IEC 60250
Dissipation Factor, 1 MHz	0.0009	-	IEC 60250
Relative Permittivity, 50/60 Hz	2.7	-	IEC 60250
FLAME CHARACTERISTICS			
UL Compliant, 94HB Flame Class Rating	1.6	mm	UL 94 by SABIC-IP
INJECTION MOLDING ⁽³⁾			
Drying Temperature	80 – 100	°C	
Drying Time	2 – 3	Hrs	
Melt Temperature	280 – 300	°C	
Nozzle Temperature	260 – 280	°C	
Front - Zone 3 Temperature	280 – 300	°C	
Middle - Zone 2 Temperature	260 – 280	°C	
Rear - Zone 1 Temperature	240 – 260	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	60 – 100	°C	
PROFILE EXTRUSION			
Drying Temperature	90 – 95	°C	
Drying Time	2 – 3	Hrs	
Melt Temperature	240 – 260	°C	
Barrel - Zone 1 Temperature	200 – 220	°C	
Barrel - Zone 2 Temperature	230 – 250	°C	
Barrel - Zone 3 Temperature	240 – 260	°C	
Barrel - Zone 4 Temperature	240 – 260	°C	
Hopper Temperature	40 – 60	°C	
Adapter Temperature	240 – 260	°C	
Die Temperature	240 – 260	°C	
Calibrator Temperature	50 – 70	°C	

- (1) The information stated on Technical Datasheets should be used as indicative only for material selection purposes and not be utilized as specification or used for part or tool design.
- (2) Measurements made from laboratory test coupon. Actual shrinkage may vary outside of range due to differences in processing conditions, equipment, part geometry and tool design. It is recommended that mold shrinkage studies be performed with surrogate or legacy tooling prior to cutting tools for new molded article.
- (3) Injection Molding parameters are only mentioned as general guidelines. These may not apply or may need adjustment in specific situations such as low shot sizes, large part molding, thin wall molding and gas-assist molding.

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