



NORYL™ Resin EXNL0143

Americas: COMMERCIAL

NORYL PX1736 Resin is a blend of PPE and PS, that provides high strength, increased heat resistance, and translucency. The material has melt strength suitable for Extrusion and Blow Molding applications. Typical applications include High Performance Applications.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	810	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	570	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	29	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	5.2	%	ASTM D 638
Tensile Modulus, 5 mm/min	28300	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	1270	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	29900	kgf/cm ²	ASTM D 790
Tensile Stress, yield, 50 mm/min	79	MPa	ISO 527
Tensile Stress, break, 50 mm/min	72	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.7	%	ISO 527
Tensile Strain, break, 50 mm/min	7.6	%	ISO 527
Tensile Modulus, 1 mm/min	3110	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	123	MPa	ISO 178
Flexural Modulus, 2 mm/min	2970	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	3	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	2	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	94	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	4	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	3	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	3	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	141	°C	ASTM D 1525



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THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	122	°C	ASTM D 648
CTE, -40°C to 40°C, flow	7.9E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	8.E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	7.9E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	8.E-05	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	N/A	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	141	°C	ISO 306
Vicat Softening Temp, Rate B/120	142	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	123	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.06	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 300°C/5.0 kgf	25.1	g/10 min	ASTM D 1238
Density	1.06	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.25	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.05	%	ISO 62
Melt Volume Rate, MVR at 300°C/5.0 kg	26	cm ³ /10 min	ISO 1133



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- Use lower process temperatures when material is let-down.

PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Sheet Extrusion		
Drying Temperature	70 - 80	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0	%
Melt Temperature	265 - 275	°C
Barrel - Zone 1 Temperature	205 - 225	°C
Barrel - Zone 2 Temperature	215 - 240	°C
Barrel - Zone 3 Temperature	240 - 265	°C
Barrel - Zone 4 Temperature	240 - 265	°C
Adapter Temperature	240 - 265	°C
Die Temperature	240 - 265	°C
Roll Stack Temp - Top	105 - 120	°C
Roll Stack Temp - Middle	105 - 120	°C
Roll Stack Temp - Bottom	105 - 120	°C