

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.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	79	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	56	MPa	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	2780	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	125	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2940	MPa	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	Value	Unit	Standard
Izod Impact, notched, 23°C	34	J/m	ASTM D 256
Izod Impact, notched, -30°C	27	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	9	J	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	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	141	°C	ASTM D 1525
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	Value	Unit	Standard
Specific Gravity	1.06	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	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

Source GMD, last updated:07/25/2005

Processing

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

Parameter	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

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THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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