

## Noryl\* Resin PKN4775

Americas: COMMERCIAL

PPE+PS blend. Opaque. FDA compliant in limited colors. High heat. Modulus at elevated temperature. Good ESCR performance. Thin wall extrusion and injection molding. Typical applications include packaging for high performance applications.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	51	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	47	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5.1	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	35	%	ASTM D 638
Tensile Modulus, 5 mm/min	2120	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	78	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2210	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	51	MPa	ISO 527
Tensile Stress, break, 50 mm/min	47	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.1	%	ISO 527
Tensile Strain, break, 50 mm/min	29.3	%	ISO 527
Tensile Modulus, 1 mm/min	2120	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	82	MPa	ISO 178
Flexural Modulus, 2 mm/min	2160	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	268	J/m	ASTM D 256
Izod Impact, notched, -30°C	161	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	39	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	20	kJ/m <sup>2</sup>	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	11	kJ/m <sup>2</sup>	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	19	kJ/m <sup>2</sup>	ISO 179/1eA
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	142	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	138	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	122	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	9.2E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.5E-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	142	°C	ISO 306
Vicat Softening Temp, Rate B/120	144	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	122	°C	ISO 75/Af
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.05	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.5 - 0.8	%	SABIC Method
Melt Flow Rate, 300°C/5.0 kgf	15.3	g/10 min	ASTM D 1238
Density	1.05	g/cm <sup>3</sup>	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	14	cm <sup>3</sup> /10 min	ISO 1133

Source GMD, last updated:11/30/2004

## 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

Source GMD, last updated:11/30/2004

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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