

Noryl* Resin PKN4752

Americas: COMMERCIAL

PPE+PS blend. High Heat. Translucent with yellow tint in natural color. FDA compliant. Extrusion and Injection Molding. Typical applications include High Performance Food Packaging, Electronics and Healthcare Packaging.

Property

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	86	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	73	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	6	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	15	%	ASTM D 638
Tensile Modulus, 50 mm/min	3000	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	144	MPa	ASTM D 790
Flexural Stress, yld, 2.6 mm/min, 100 mm span	136	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	3150	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	2940	MPa	ASTM D 790
IMPACT	Value	Unit	Standard
Izod Impact, notched, 23°C	32	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	6	J	ASTM D 3763
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	173	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	160	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	151	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	151	°C	ASTM D 648
CTE, -40°C to 40°C, flow	6.3E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	5.58E-05	1/°C	ASTM E 831
PHYSICAL	Value	Unit	Standard
Specific Gravity	1.08	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.6 - 0.9	%	SABIC Method

Source GMD, last updated:08/16/2002

Processing

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

Parameter		
Sheet Extrusion	Value	Unit
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:08/16/2002

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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