

## Noryl\* Resin PX4280

Americas: LIMITED USE

GR 20%. 290F (143C) DTUL. UL94 HB rated. Applications in water contact areas; housings and impellers for pumps. Also motor housings, etc.

### Property

TYPICAL PROPERTIES <sup>(1)</sup>			
	Value	Unit	Standard
<b>MECHANICAL</b>			
Tensile Stress, brk, Type I, 5 mm/min	89	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	5	%	ASTM D 638
Flexural Stress, yld, 2.6 mm/min, 100 mm span	144	MPa	ASTM D 790
Flexural Modulus, 2.6 mm/min, 100 mm span	5280	MPa	ASTM D 790
Hardness, Rockwell L	106	-	ASTM D 785
<b>IMPACT</b>			
Izod Impact, notched, 23°C	106	J/m	ASTM D 256
Izod Impact, notched, -40°C	96	J/m	ASTM D 256
<b>THERMAL</b>			
HDT, 0.45 MPa, 6.4 mm, unannealed	145	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	137	°C	ASTM D 648
CTE, -40°C to 95°C, flow	3.6E-05	1/°C	ASTM E 831
Relative Temp Index, Elec	90	°C	UL 746B
Relative Temp Index, Mech w/impact	90	°C	UL 746B
Relative Temp Index, Mech w/o impact	90	°C	UL 746B
<b>PHYSICAL</b>			
Specific Gravity	1.2	-	ASTM D 792
Water Absorption, 24 hours	0.06	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.2 - 0.5	%	SABIC Method
<b>ELECTRICAL</b>			
Dielectric Strength, in oil, 3.2 mm	16.5	kV/mm	ASTM D 149
Relative Permittivity, 50/60 Hz	2.86	-	ASTM D 150
Dissipation Factor, 50/60 Hz	0.0008	-	ASTM D 150
Arc Resistance, Tungsten {PLC}	7	PLC Code	ASTM D 495
Hot Wire Ignition {PLC}	4	PLC Code	UL 746A
High Voltage Arc Track Rate {PLC}	4	PLC Code	UL 746A
High Ampere Arc Ign, surface {PLC}	4	PLC Code	UL 746A
<b>FLAME CHARACTERISTICS</b>			
UL Recognized, 94HB Flame Class Rating (3)	1.47	mm	UL 94
Oxygen Index (LOI)	26	%	ASTM D 2863
UV-light, water exposure/immersion	F1	-	UL 746C

Source GMD, last updated:12/29/1999

### Processing

Parameter	Value	Unit
Injection Molding		
Drying Temperature	110 - 120	°C
Drying Time	3 - 4	hrs

Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	300 - 325	°C
Nozzle Temperature	300 - 325	°C
Front - Zone 3 Temperature	290 - 325	°C
Middle - Zone 2 Temperature	275 - 320	°C
Rear - Zone 1 Temperature	265 - 315	°C
Mold Temperature	80 - 110	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	20 - 100	rpm
Shot to Cylinder Size	30 - 70	%

Source GMD, last updated:12/29/1999

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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