



## Noryl PPX\* Resin PPX7200

Americas: COMMERCIAL

PP+PPE+PS. Improved chemical resistance and surface aesthetics in injection molded applications. NSF61-capable. UL-94 HB listed.

## **Property**

TYPICAL PROPERTIES (1)			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	33	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	27	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	10	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	130	%	ASTM D 638
Tensile Modulus, 50 mm/min	1240	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	48	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	1440	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	34	MPa	ISO 527
Tensile Stress, break, 50 mm/min	28	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	8.2	%	ISO 527
Tensile Strain, break, 50 mm/min	115	%	ISO 527
Tensile Modulus, 1 mm/min	1670	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	48	MPa	ISO 178
Flexural Modulus, 2 mm/min	1600	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	1441	J/m	ASTM D 4812
Izod Impact, notched, 23°C	149	J/m	ASTM D 256
Izod Impact, notched, -30°C	0	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	36	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	NB	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	14	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	12	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	6	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	NB	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	80	kJ/m²	ISO 179/1eU
THERMAL	Value	Unit	Standard
Vicat Softening Temp, Rate B/50	146	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	110	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	71	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.9E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.08E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	9.9E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.08E-04	1/°C	ISO 11359-2
Ball Pressure Test, 75°C +/- 2°C	-	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	103	°C	ISO 306
Vicat Softening Temp, Rate B/120	107	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	73	°C	ISO 75/Af

PHYSICAL	Value	Unit	Standard
Specific Gravity	0.99	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.6 - 0.8	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm	0.6 - 0.8	%	SABIC Method
Melt Flow Rate, 260°C/5.0 kgf	16	g/10 min	ASTM D 1238
Density	0.99	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	0.05	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.02	%	ISO 62
Melt Volume Rate, MVR at 260°C/5.0 kg	18	cm³/10 min	ISO 1133

Source GMD, last updated:02/07/2006

## **Processing**

Parameter		
Injection Molding	Value	Unit
Drying Temperature	60 - 65	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	260 - 290	°C
Nozzle Temperature	260 - 290	°C
Front - Zone 3 Temperature	250 - 290	°C
Middle - Zone 2 Temperature	240 - 280	°C
Rear - Zone 1 Temperature	225 - 275	°C
Mold Temperature	30 - 50	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	20 - 100	rpm
Shot to Cylinder Size	30 - 70	%
Vent Depth	0.038 - 0.051	mm

Source GMD, last updated:02/07/2006

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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