



NORYL™ Resin PPX640
Americas: COMMERCIAL

40% GR PPE+PP. High elongation. high stiffness.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	970	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	970	kgf/cm ²	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	6.4	%	ASTM D 638
Flexural Stress, brk, 1.3 mm/min, 50 mm span	1530	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	84700	kgf/cm ²	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	58	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	10	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	9	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	171	cm-kgf	ASTM D 3763
Instrumented Impact Total Energy, -30°C	144	cm-kgf	ASTM D 3763
THERMAL			
Vicat Softening Temp, Rate B/50	163	°C	ASTM D 1525
HDT, 0.45 MPa, 3.2 mm, unannealed	158	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	146	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.08E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	6.3E-05	1/°C	ASTM E 831
PHYSICAL			
Specific Gravity	1.3	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.17 - 0.18	%	SABIC Method
Mold Shrinkage, xflow, 3.2 mm (5)	0.27 - 0.61	%	SABIC Method
Melt Flow Rate, 260°C/5.0 kgf	1.3	g/10 min	ASTM D 1238



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	65 - 75	°C
Drying Time	2 - 4	hrs
Drying Time (Cumulative)	8	hrs
Maximum Moisture Content	0.02	%
Melt Temperature	260 - 305	°C
Nozzle Temperature	260 - 305	°C
Front - Zone 3 Temperature	255 - 300	°C
Middle - Zone 2 Temperature	250 - 290	°C
Rear - Zone 1 Temperature	245 - 290	°C
Mold Temperature	40 - 65	°C
Back Pressure	0.3 - 0.7	MPa
Screw Speed	20 - 100	rpm
Shot to Cylinder Size	30 - 70	%
Vent Depth	0.051 - 0.076	mm