NORYL PPX™ RESIN PPX640

REGION ASIA

DESCRIPTION

NORYL PPX™ 640 resin is a 40% glass reinforced alloy of polyphenylene ether (PPE) + Polypropylene (PP). This injection moldable grade exhibits high stiffness along with temperature performance, impact resistance, hydrolytic stability, and dimensional stability. NORYL PPX640 resin is an excellent candidate for applications requiring a good chemical resistance and high stiffness.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	95	MPa	ASTM D 638
Tensile Stress, brk, Type I, 5 mm/min	95	MPa	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	150	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	8310	MPa	ASTM D 790
IMPACT			
Izod Impact, unnotched, 23°C	576	J/m	ASTM D 4812
Izod Impact, notched, 23°C	106	J/m	ASTM D 256
Izod Impact, notched, -30°C	96	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	16	J	ASTM D 3763
Instrumented Impact Total Energy, -30°C	14	J	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	0.17 – 0.18	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.27 – 0.61	%	SABIC method
Melt Flow Rate, 260°C/5.0 kgf	1.3	g/10 min	ASTM D 1238
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	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
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	

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