

NORYL PPX™ RESIN PPX830

REGION EUROPE

DESCRIPTION

NORYL PPX830 Polyphenylene Oxide (PPO*) + Polypropylene (PP) resin is a 30 % Glass Reinforced, injection moldable grade with a HDT / 1.8MPa temperature resistance of 153 deg C and a Tensile modulus of 7600 MPa; this grade has been developed for application where dimension stability, temperature and chemical resistance could be required. NORYL PPX830 is an opaque material available in limited colors only.

TYPICAL PROPERTY VALUES

Revision 20250306

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 5 mm/min	101	MPa	ASTM D638
Tensile Stress, brk, Type I, 5 mm/min	101	MPa	ASTM D638
Tensile Strain, yld, Type I, 5 mm/min	2.9	%	ASTM D638
Tensile Strain, brk, Type I, 5 mm/min	101	%	ASTM D638
Tensile Modulus, 5 mm/min	7600	MPa	ASTM D638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	144	MPa	ASTM D790
Flexural Modulus, 1.3 mm/min, 50 mm span	6600	MPa	ASTM D790
Tensile Stress, yield, 5 mm/min	98	MPa	ISO 527
Tensile Stress, break, 5 mm/min	98	MPa	ISO 527
Tensile Strain, yield, 5 mm/min	3.2	%	ISO 527
Tensile Strain, break, 5 mm/min	3.2	%	ISO 527
Tensile Modulus, 1 mm/min	7700	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	141	MPa	ISO 178
Flexural Modulus, 2 mm/min	7100	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	650	J/m	ASTM D4812
Izod Impact, notched, 23°C	95	J/m	ASTM D256
Instrumented Dart Impact Total Energy, 23°C	15	J	ASTM D3763
Instrumented Dart Impact Total Energy, -30°C	10	J	ASTM D3763
Izod Impact, unnotched 80*10*4 +23°C	42	kJ/m²	ISO 180/1U
Izod Impact, unnotched 80*10*4 -30°C	42	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	10	kJ/m²	ISO 180/1A
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	39	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	36	kJ/m²	ISO 179/1eU
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	166	°C	ASTM D648
HDT, 1.82 MPa, 3.2mm, unannealed	156	°C	ASTM D648
CTE, -40°C to 95°C, flow	2.5E-05	1/°C	ASTM E831
CTE, -40°C to 95°C, xflow	1.3E-04	1/°C	ASTM E831
CTE, -30°C to 80°C, flow	2.5E-05	1/°C	ISO 11359-2
CTE, -30°C to 80°C, xflow	1.2E-04	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	Passes	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/120	150	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	168	°C	ISO 75/Bf

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	153	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.19	-	ASTM D792
Mold Shrinkage, flow, 3.2 mm	0.2 – 0.25	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.4 – 0.6	%	SABIC method
Melt Flow Rate, 280°C/5.0 kgf	6	g/ 10 min	ASTM D1238
Density	1.19	g/cm³	ISO 1183
Melt Volume Rate, MVR at 280°C/5.0 kg	6	cm³/10 min	ISO 1133
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating	1	mm	UL 94
Glow Wire Flammability Index 650°C, passes at	3	mm	IEC 60695-2-12
INJECTION MOLDING			
Drying Temperature	65 – 75	°C	
Drying Time	2 – 4	Hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	260 – 300	°C	
Nozzle Temperature	260 – 300	°C	
Front - Zone 3 Temperature	255 – 290	°C	
Middle - Zone 2 Temperature	250 – 290	°C	
Rear - Zone 1 Temperature	245 – 290	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	40 – 65	°C	

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