NORYL™ RESIN NP6100

REGION ASIA

DESCRIPTION

NORYL™ NP6100 is an unfilled extrusion modified polyphenylene ether resin. Designed for high heat resistance with good strength and toughness, as well as good FR performance. NP6100 is a good candidate for water pipe application.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	60	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	47	MPa	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	4.5	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	10.5	%	ASTM D 638
Flexural Stress, yield, 6.4 mm	95	MPa	ASTM D 790
Flexural Modulus, 6.4 mm	2200	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	510	J/m	ASTM D 256
Izod Impact, notched, -30°C	180	J/m	ASTM D 256
Izod Impact, notched 80*10*4 +23°C	39.9	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	15.8	kJ/m²	ISO 180/1A
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	121	°C	ASTM D 648
PHYSICAL			
Specific Gravity	1.08	-	ASTM D 792
Melt Flow Rate, 280°C/10.0 kgf	10.5	g/10 min	ASTM D 1238
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.5 – 0.7	%	SABIC method
FLAME CHARACTERISTICS			
UL Compliant, 94V-1 Flame Class Rating	1.5	mm	UL 94 by SABIC-IP
Glow Wire Flammability Index 960°C, passes at	1	mm	IEC 60695-2-12
INJECTION MOLDING			
Drying Temperature	90 – 100	°C	
Drying Time	2 – 4	hrs	
Drying Time (Cumulative)	6	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	255 – 275	°C	
Rear - Zone 1 Temperature	235 – 255	°C	
Middle - Zone 2 Temperature	255 – 275	°C	
Front - Zone 3 Temperature	255 – 275	°C	
Nozzle Temperature	255 – 275	°C	
EXTRUSION			
Adapter Temperature	255 – 275	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Die Temperature	255 – 275	°C	

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