

NORYL™ RESIN PX9406P

REGION ASIA

DESCRIPTION

NORYL PX9406P resin is an FR (non-halogenated) grade potentially suitable for a variety of electronics applications. RTI (impact) = 105 C. F1 listed in BK color.

TYPICAL PROPERTY VALUES

Revision 20180905

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, yield	63	MPa	SABIC - Japan Method
Tensile Strain, break	85	%	SABIC - Japan Method
Flexural Stress	99	MPa	ASTM D 790
Flexural Modulus	2350	MPa	ASTM D 790
Tensile Stress, yield, 50 mm/min	73	MPa	ISO 527
Tensile Strain, break, 50 mm/min	4.5	%	ISO 527
Flexural Stress, yield, 2 mm/min	108	MPa	ISO 178
Flexural Modulus, 2 mm/min	2600	MPa	ISO 178
IMPACT			
Izod Impact, notched, 23°C	166	J/m	ASTM D 256
Izod Impact, notched 80*10*4 +23°C	13	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 0°C	11	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -10°C	10	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	9	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	8	kJ/m ²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	8	kJ/m ²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	14	kJ/m ²	ISO 179/1eA
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	9	kJ/m ²	ISO 179/1eU
THERMAL			
HDT, 0.45 MPa, 6.4 mm, unannealed	136	°C	ASTM D 648
HDT, 1.82 MPa, 6.4 mm, unannealed	125	°C	ASTM D 648
CTE, -30°C to 30°C	7.E-05	1/°C	TMA
CTE, -40°C to 40°C, flow	6.63E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	7.58E-05	1/°C	ISO 11359-2
Ball Pressure Test, approximate maximum	125	°C	IEC 60695-10-2
Vicat Softening Temp, Rate A/ 120	151	°C	ISO 306
Vicat Softening Temp, Rate B/ 120	142	°C	ISO 306
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	117	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.09	-	ASTM D 792
Water Absorption, 24 hours	0.07	%	ASTM D 570
Mold Shrinkage, flow, 3.2 mm	0.5 – 0.7	%	SABIC method
Melt Flow Rate, 250°C/ 10.0 kgf	3.9	g/10 min	ASTM D 1238
Density	1.08	g/cm ³	ISO 1183

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Melt Volume Rate, MVR at 280°C/5.0 kg	10	cm ³ / 10 min	ISO 1133
Melt Volume Rate, MVR at 280°C/10.0 kg	27	cm ³ / 10 min	ISO 1133
Melt Volume Rate, MVR at 300°C/5.0 kg	23	cm ³ / 10 min	ISO 1133
Melt Viscosity, 280°C, 1500 sec-1	278	Pa-s	ISO 11443
ELECTRICAL			
Surface Resistivity	1.E+16	Ohm	ASTM D 257
Relative Permittivity, 50/60 Hz	2.8	-	ASTM D 150
FLAME CHARACTERISTICS			
UL Recognized, 94V-2 Flame Class Rating	0.4	mm	UL 94
UL Recognized, 94V-0 Flame Class Rating	0.75	mm	UL 94
UL Recognized, 94-5VA Rating	2.5	mm	UL 94
INJECTION MOLDING			
Drying Temperature	105 – 110	°C	
Drying Time	3 – 4	hrs	
Drying Time (Cumulative)	8	hrs	
Maximum Moisture Content	0.02	%	
Melt Temperature	275 – 305	°C	
Nozzle Temperature	275 – 305	°C	
Front - Zone 3 Temperature	265 – 305	°C	
Middle - Zone 2 Temperature	255 – 300	°C	
Rear - Zone 1 Temperature	245 – 295	°C	
Mold Temperature	70 – 100	°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	

DISCLAIMER

Any sale by SABIC, its subsidiaries and affiliates (each a "seller"), is made exclusively under seller's standard conditions of sale (available upon request) unless agreed otherwise in writing and signed on behalf of the seller. While the information contained herein is given in good faith, SELLER MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING MERCHANTABILITY AND NONINFRINGEMENT OF INTELLECTUAL PROPERTY, NOR ASSUMES ANY LIABILITY, DIRECT OR INDIRECT, WITH RESPECT TO THE PERFORMANCE, SUITABILITY OR FITNESS FOR INTENDED USE OR PURPOSE OF THESE PRODUCTS IN ANY APPLICATION. Each customer must determine the suitability of seller materials for the customer's particular use through appropriate testing and analysis. No statement by seller concerning a possible use of any product, service or design is intended, or should be construed, to grant any license under any patent or other intellectual property right.