

NORYL™ 731 resin

Polyphenylene Ether + PS

SABIC Innovative Plastics

Message:

NORYL 731 is an unfilled material, with a Vicat B/120 of 140C according ISO 306. NORYL 731 is a general purpose material with good balance of Strength, Impact and Flow. NORYL 731 is available in all colours.

General Information	
UL YellowCard	E45329-236745
Features	Impact resistance, good
	Good liquidity
	Good strength
	General
Uses	General
RoHS Compliance	RoHS compliance
Appearance	Available colors
Processing Method	Profile extrusion molding
	Injection molding

Physical	Nominal Value	Unit	Test Method
Density	1.06	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	8.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.50 - 0.70	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.23	%	ISO 62
Equilibrium, 23°C, 50% RH	0.060	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	100	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2300	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	55.0	MPa	ISO 527-2/50
Fracture	50.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	5.0	%	ISO 527-2/50
Fracture	30	%	ISO 527-2/50
Flexural Modulus ²	2200	MPa	ISO 178
Flexural Stress	75.0	MPa	ISO 178

Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	65.0	mg	Internal method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ³			ISO 179/1eA
-30°C	5.0	kJ/m ²	ISO 179/1eA
23°C	15	kJ/m ²	ISO 179/1eA
Notched Izod Impact ⁴			ISO 180/1A
-30°C	5.0	kJ/m ²	ISO 180/1A
23°C	15	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁵			
0.45 MPa, unannealed, 100 mm span	130	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span	115	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	145	°C	ISO 306/A50
--	135	°C	ISO 306/B50
--	140	°C	ISO 306/B120
Ball Pressure Test			IEC 60695-10-2
125°C	Pass		IEC 60695-10-2
133°C ⁶	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 80°C	7.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	7.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.22	W/m/K	ISO 8302
RTI Elec	105	°C	UL 746
RTI Imp	90.0	°C	UL 746
RTI	105	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	1.0E+15	ohms · cm	IEC 60093
Dielectric Strength (3.20 mm, in Oil)	19	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	2.70		IEC 60250
60 Hz	2.70		IEC 60250
1 MHz	2.60		IEC 60250
Dissipation Factor			IEC 60250
50 Hz	2.0E-3		IEC 60250
60 Hz	2.0E-3		IEC 60250
1 MHz	1.0E-3		IEC 60250
Comparative Tracking Index	175	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94

1.50 mm	HB	UL 94
3.00 mm	HB	UL 94
Glow Wire Flammability Index (3.20 mm)	750	°C IEC 60695-2-12
Oxygen Index	22	% ISO 4589-2

Injection	Nominal Value	Unit
Drying Temperature	100 - 120	°C
Drying Time	2.0 - 3.0	hr
Hopper Temperature	60.0 - 80.0	°C
Rear Temperature	240 - 260	°C
Middle Temperature	260 - 280	°C
Front Temperature	280 - 300	°C
Nozzle Temperature	260 - 280	°C
Processing (Melt) Temp	280 - 300	°C
Mold Temperature	80.0 - 120	°C

Extrusion	Nominal Value	Unit
Drying Temperature	100 - 110	°C
Drying Time	2.0 - 3.0	hr
Hopper Temperature	40.0 - 60.0	°C
Cylinder Zone 1 Temp.	220 - 240	°C
Cylinder Zone 2 Temp.	230 - 250	°C
Cylinder Zone 3 Temp.	250 - 270	°C
Cylinder Zone 4 Temp.	250 - 270	°C
Adapter Temperature	250 - 270	°C
Melt Temperature	250 - 270	°C
Die Temperature	250 - 270	°C
Calibration Temp, First	60.0 - 80.0	°C

NOTE	
1.	Tensile Bar
2.	2.0 mm/min
3.	80*10*4 sp=62mm
4.	80*10*4
5.	120*10*4 mm
6.	Approximate maximum

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

