

NORYL™ NHP9023 resin

Polyphenylene Ether

SABIC Innovative Plastics Asia Pacific

Message:

NORYL NHP9023 resin is 15% glass fiber reinforced, with a non-halogen flame retardant (UL94 V-0 at 1.5 mm) and high heat distortion temperature (150 C)

General Information			
UL YellowCard	E207780-102131113		
Filler / Reinforcement	Glass fiber reinforced material, 15% filler by weight		
Additive	Flame retardancy		
Features	Halogen-free		
	Flame retardancy		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.21	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/5.0 kg)	20	g/10 min	ASTM D1238
Molding Shrinkage - Flow (3.20 mm)	0.50	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.20	%	ISO 62
Equilibrium, 23°C, 50% RH	0.050	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	121		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	5400	MPa	ASTM D638
--	5600	MPa	ISO 527-2/1
Tensile Strength			
Fracture ²	112	MPa	ASTM D638
Fracture	112	MPa	ISO 527-2/5
Tensile Elongation			
Fracture ³	2.9	%	ASTM D638
Fracture	2.7	%	ISO 527-2/5
Flexural Modulus			
50.0mm span ⁴	5200	MPa	ASTM D790
-- ⁵	5200	MPa	ISO 178
Flexural Stress			
--	163	MPa	ISO 178
Yield, 50.0mm span ⁶	163	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁷ (23°C)	7.0	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
-30°C	61	J/m	ASTM D256
23°C	72	J/m	ASTM D256
-30°C ⁸	6.0	kJ/m ²	ISO 180/1A
23°C ⁹	7.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
-30°C	500	J/m	ASTM D4812
23°C	500	J/m	ASTM D4812
-30°C ¹⁰	28	kJ/m ²	ISO 180/1U
23°C ¹¹	27	kJ/m ²	ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	10.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, unannealed, 3.20mm	153	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	154	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ¹²	155	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	161	°C	ISO 306/B50
--	163	°C	ISO 306/B120
Linear thermal expansion coefficient			ASTM E831, ISO 11359-2
Flow: 23 to 80°C	3.5E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Lateral: 23 to 80°C	6.4E-5	cm/cm/°C	ASTM E831, ISO 11359-2
RTI Elec	65.0	°C	UL 746
RTI Imp	65.0	°C	UL 746
RTI	65.0	°C	UL 746
Electrical	Nominal Value	Test Method	
Comparative Tracking Index (CTI)	PLC 3	UL 746	
Flammability	Nominal Value	Test Method	
Flame Rating		UL 94	
0.75 mm	V-1	UL 94	
1.5 mm	V-0	UL 94	
Injection	Nominal Value	Unit	
Drying Temperature	110 - 121	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	8.0	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	30 - 70	%	
Rear Temperature	266 - 316	°C	
Middle Temperature	277 - 321	°C	

Front Temperature	288 - 327	°C
Nozzle Temperature	299 - 327	°C
Processing (Melt) Temp	299 - 327	°C
Mold Temperature	82 - 110	°C
Back Pressure	0.345 - 0.689	MPa
Screw Speed	20 - 100	rpm

NOTE

1.	5.0 mm/min
2.	Type 1, 5.0 mm/min
3.	Type 1, 5.0 mm/min
4.	1.3 mm/min
5.	2.0 mm/min
6.	1.3 mm/min
7.	80*10*4 sp=62mm
8.	80*10*4
9.	80*10*4
10.	80*10*4
11.	80*10*4
12.	80*10*4 mm

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



WECHAT