

NORYL™ FXN119BK resin

Polyphenylene Ether + PS

SABIC Innovative Plastics

Message:

NORYL FXN119BK is a low gloss PPE/HIPS grade. It provides a balance of mechanical properties and heat performance with intrinsic low gloss appearance. FXN119BKBK is available in black only.

General Information			
Features	Low Gloss		
Appearance	Black		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.06	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (280°C/5.0 kg)	8.0	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (280°C/5.0 kg)	8.00	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.50 to 0.70	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.23	%	
Equilibrium, 23°C, 50% RH	0.060	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	116		ISO 2039-2
Ball Indentation Hardness (H 358/30)	95.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2400	MPa	ASTM D638
--	2200	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	53.0	MPa	ASTM D638
Yield	51.0	MPa	ISO 527-2/50
Break ³	49.0	MPa	ASTM D638
Break	48.0	MPa	ISO 527-2/50
Tensile Elongation			
Yield ⁴	5.1	%	ASTM D638
Yield	4.2	%	ISO 527-2/50
Break ⁵	40	%	ASTM D638
Break	40	%	ISO 527-2/50
Flexural Modulus			
50.0 mm Span ⁶	2200	MPa	ASTM D790
-- ⁷	2200	MPa	ISO 178
Flexural Stress			

--	77.0	MPa	ISO 178
Yield, 50.0 mm Span ⁸	85.0	MPa	ASTM D790
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	75.0	mg	Internal Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹			ISO 179/1eA
-30°C	7.0	kJ/m ²	
23°C	14	kJ/m ²	
Notched Izod Impact			
-30°C	110	J/m	ASTM D256
23°C	160	J/m	ASTM D256
-30°C ¹⁰	7.0	kJ/m ²	ISO 180/1A
23°C ¹¹	11	kJ/m ²	ISO 180/1A
Instrumented Dart Impact (23°C, Total Energy)	42.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed, 64.0 mm Span ¹²	133	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	117	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹³	117	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	140	°C	ASTM D1525 ¹⁴
--	139	°C	ISO 306/B50
--	142	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			ASTM E831, ISO 11359-2
Flow : -40 to 40°C	9.2E-5	cm/cm/°C	
Transverse : -40 to 40°C	9.5E-5	cm/cm/°C	
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.50 mm, Testing by SABIC)	HB		UL 94
Glow Wire Flammability Index (3.20 mm)	750	°C	IEC 60695-2-12
Optical	Nominal Value		Test Method
Gardner Gloss (60°, Untextured)	20		ASTM D523
Injection	Nominal Value	Unit	
Drying Temperature	70.0 to 90.0	°C	
Drying Time	2.0 to 3.0	hr	
Hopper Temperature	60.0 to 80.0	°C	
Rear Temperature	200 to 220	°C	
Middle Temperature	240 to 260	°C	
Front Temperature	260 to 285	°C	
Nozzle Temperature	260 to 280	°C	
Processing (Melt) Temp	265 to 285	°C	
Mold Temperature	40.0 to 70.0	°C	

NOTE	
1.	5.0 mm/min
2.	Type I, 50 mm/min
3.	Type I, 50 mm/min
4.	Type I, 50 mm/min
5.	Type I, 50 mm/min
6.	1.3 mm/min
7.	2.0 mm/min
8.	1.3 mm/min
9.	80*10*4 sp=62mm
10.	80*10*4
11.	80*10*4
12.	80*10*4 mm
13.	80*10*4 mm
14.	Rate B (120°C/h), Loading 2 (50 N)

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