



NORYL™ Resin FXN119BK

Americas: COMMERCIAL

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.

TYPICAL PROPERTIES ¹	TYPICAL VALUE	Unit	Standard
MECHANICAL			
Tensile Stress, yld, Type I, 50 mm/min	540	kgf/cm ²	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	490	kgf/cm ²	ASTM D 638
Tensile Strain, yld, Type I, 50 mm/min	5.1	%	ASTM D 638
Tensile Strain, brk, Type I, 50 mm/min	40	%	ASTM D 638
Tensile Modulus, 5 mm/min	24400	kgf/cm ²	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	860	kgf/cm ²	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	22400	kgf/cm ²	ASTM D 790
Taber Abrasion, CS-17, 1 kg	75	mg/1000cy	SABIC Method
Tensile Stress, yield, 50 mm/min	51	MPa	ISO 527
Tensile Stress, break, 50 mm/min	48	MPa	ISO 527
Tensile Strain, yield, 50 mm/min	4.2	%	ISO 527
Tensile Strain, break, 50 mm/min	40	%	ISO 527
Tensile Modulus, 1 mm/min	2200	MPa	ISO 527
Flexural Stress, yield, 2 mm/min	77	MPa	ISO 178
Flexural Modulus, 2 mm/min	2200	MPa	ISO 178
Hardness, H358/30	95	MPa	ISO 2039-1
Hardness, Rockwell R	116	-	ISO 2039-2
IMPACT			
Izod Impact, notched, 23°C	16	cm-kgf/cm	ASTM D 256
Izod Impact, notched, -30°C	11	cm-kgf/cm	ASTM D 256
Instrumented Impact Total Energy, 23°C	428	cm-kgf	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	11	kJ/m ²	ISO 180/1A



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IMPACT			
Izod Impact, notched 80*10*4 -30°C	7	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, V-notch Edgew 80*10*4 sp=62mm	7	kJ/m ²	ISO 179/1eA
THERMAL			
Vicat Softening Temp, Rate B/50	140	°C	ASTM D 1525
HDT, 1.82 MPa, 3.2mm, unannealed	117	°C	ASTM D 648
CTE, -40°C to 40°C, flow	9.2E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	9.5E-05	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	9.2E-05	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	9.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	Passes	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	139	°C	ISO 306
Vicat Softening Temp, Rate B/120	142	°C	ISO 306
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	133	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	117	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.06	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm (5)	0.5 - 0.7	%	SABIC Method
Melt Flow Rate, 280°C/5.0 kgf	8	g/10 min	ASTM D 1238
Density	1.06	g/cm ³	ISO 1183
Water Absorption, (23°C/sat)	0.23	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.06	%	ISO 62
Melt Volume Rate, MVR at 280°C/5.0 kg	8	cm ³ /10 min	ISO 1133
OPTICAL			
Gloss, untextured, 60 degrees	20	-	ASTM D 523
FLAME CHARACTERISTICS			
UL Compliant, 94HB Flame Class Rating (3)(4)	1.5	mm	UL 94 by SABIC-IP



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FLAME CHARACTERISTICS Glow Wire Flammability Index 750°C, passes at	3.2	mm	IEC 60695-2-12



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PROCESSING PARAMETERS	TYPICAL VALUE	Unit
Injection Molding		
Drying Temperature	70 - 90	°C
Drying Time	2 - 3	hrs
Melt Temperature	265 - 285	°C
Nozzle Temperature	260 - 280	°C
Front - Zone 3 Temperature	260 - 285	°C
Middle - Zone 2 Temperature	240 - 260	°C
Rear - Zone 1 Temperature	200 - 220	°C
Hopper Temperature	60 - 80	°C
Mold Temperature	40 - 70	°C