

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.

Property

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yld, Type I, 50 mm/min	53	MPa	ASTM D 638
Tensile Stress, brk, Type I, 50 mm/min	49	MPa	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	2400	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	85	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	2200	MPa	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	Value	Unit	Standard
Izod Impact, notched, 23°C	160	J/m	ASTM D 256
Izod Impact, notched, -30°C	110	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	42	J	ASTM D 3763
Izod Impact, notched 80*10*4 +23°C	11	kJ/m ²	ISO 180/1A
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	Value	Unit	Standard
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	Value	Unit	Standard

Specific Gravity	1.06	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	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	Value	Unit	Standard
Gloss, untextured, 60 degrees	20	-	ASTM D 523
FLAME CHARACTERISTICS	Value	Unit	Standard
UL Compliant, 94HB Flame Class Rating (3)(4)	1.5	mm	UL 94 by GE
Glow Wire Flammability Index 750°C, passes at	3.2	mm	IEC 60695-2-12

Source GMD, last updated:02/08/2006

Processing

Parameter	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

Source GMD, last updated:02/08/2006

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

PLEASE CHECK WITH YOUR [\(LOCAL SALES OFFICE\)](#) FOR AVAILABILITY IN YOUR REGION

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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