

Product Texts

NORYL™ BN0039 resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This blow moldable grade exhibits a good balance of impact resistance and surface aesthetics. NORYL BN0039 resin, with its Low warpage and dimensional stability, is an excellent candidate for automotive exterior components including spoilers.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	12	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	10	g/10min	ASTM D 1238
Temperature	280	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2170	MPa	ISO 527
Yield stress	47	MPa	ISO 527
Yield strain	3.4	%	ISO 527
Stress at break	42	MPa	ISO 527
Strain at break	30.4	%	ISO 527
Flexural modulus	2190	MPa	ISO 178
Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	107	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	26	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	12	kJ/m ²	ISO 179/1eA
Izod impact strength, +23°C, 4mm	N	kJ/m ²	ISO 180/1U
Izod impact strength, -30°C, 4mm	54	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	25	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	10	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2240	MPa	ASTM D 638
Tensile Strength at Yield	48	MPa	ASTM D 638
Tensile Strength at Break	42	MPa	ASTM D 638
Elongation at Yield	3.6	%	ASTM D 638
Elongation at Break	45	%	ASTM D 638
Flexural Modulus	2150	MPa	ASTM D 790
Izod Impact notched, 1/8 in	320	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	127	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	N	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	110	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	126	°C	ISO 75-1/-2
Vicat softening temperature, B	127	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	130	°C	ISO 306
ASTM Data			
DTUL @ 66 psi	124	°C	ASTM D 648
DTUL @ 264 psi	108	°C	ASTM D 648
Vicat Temperature	141	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	0.25	%	Sim. to ISO 62
Humidity absorption	0.05	%	Sim. to ISO 62
Density	1060	kg/m ³	ISO 1183
Density	1060	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80 - 85	°C	-

Processing Recommendation Extrusion	Value	Unit	Test Standard
Pre-drying - Temperature	80 - 85	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	235 - 260	°C	-
Mold temperature	65 - 95	°C	-
Zone 1	260 - 225	°C	-
Zone 2	230 - 260	°C	-
Zone 3	235 - 260	°C	-
Zone 4	235 - 260	°C	-
Zone 5	235 - 260	°C	-

Characteristics**Processing**

Blow Molding

Regional Availability

Asia Pacific