

Product Texts

NORYL GTX™ 918A resin is a non-reinforced alloy of Polyphenylene Ether (PPE) + Polyamide (PA). This injection moldable grade exhibits high heat resistance, excellent chemical resistance, high melt flow, and added mold release. NORYL GTX918A resin may be an excellent candidate for automotive under-the-hood and electrical applications requiring the retention of properties while under thermal load.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	5	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	1.2	kg	-
ASTM Data			
Melt Flow Index, MFI	45	g/10min	ASTM D 1238
Temperature	280	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Yield stress	60	MPa	ISO 527
Yield strain	4.5	%	ISO 527
Stress at break	55	MPa	ISO 527
Strain at break	30	%	ISO 527
Flexural modulus	2200	MPa	ISO 178
Charpy notched impact strength, +23°C	20	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	10	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	20	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	10	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	810	MPa	ASTM D 638
Tensile Strength at Yield	62	MPa	ASTM D 638
Tensile Strength at Break	57	MPa	ASTM D 638
Elongation at Yield	11.4	%	ASTM D 638
Elongation at Break	53	%	ASTM D 638
Flexural Modulus	2360	MPa	ASTM D 790
Izod Impact notched, 1/8 in	202	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
ISO Data			
Vicat softening temperature, A	245	°C	ISO 306
Vicat softening temperature, B	190	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	195	°C	ISO 306
Coeff. of linear therm. expansion, parallel	80	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	80	E-6/K	ISO 11359-1/-2
ASTM Data			
DTUL @ 66 psi	188	°C	ASTM D 648
DTUL @ 264 psi	148	°C	ASTM D 648
Vicat Temperature	242	°C	ASTM D 1525
Thermal Conductivity, solid state	0.036	W/(m K)	ASTM C 177

Other properties	Value	Unit	Test Standard
Density	1090	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	95 - 105	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.07	%	-
Melt temperature	270 - 295	°C	-
Mold temperature	65 - 95	°C	-
Zone 1	255 - 295	°C	-

NORYL GTX™ Resin GTX918A
(PPE+PA*)

Saudi Basic Industries Corporation (SABIC)

Zone 2	260 - 295	°C	-
Zone 3	265 - 295	°C	-
Screw speed	20 - 100	rpm	-
Back pressure	0.3 - 1.4	MPa	-

Characteristics

Processing

Injection Molding

Regional Availability

North America, Europe, Asia Pacific

Applications

Automotive