

NORYL™ Resin NP6100 - Asia

(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

Product Texts

NORYL™ NP6100 resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS) designed for high heat resistance with good strength, toughness and robust FR performance. This extrudable grade contains non-brominated, non-chlorinated flame retardant. NORYL NP6100 resin may be an excellent candidate for mining pipe applications as well as low smoke cable channel applications where EN45545 R22 certificate (European railway standard for small electrical parts) is required.

Processing/Physical Characteristics

	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	11	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	10	kg	-
ASTM Data			
Melt Flow Index, MFI	10.5	g/10min	ASTM D 1238
Temperature	280	°C	-
Load	10	kg	-

Mechanical properties

	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2330	MPa	ISO 527
Yield stress	68	MPa	ISO 527
Yield strain	4.5	%	ISO 527
Stress at break	52	MPa	ISO 527
Strain at break	7	%	ISO 527
Flexural modulus	2350	MPa	ISO 178
Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	37	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	21	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	N	kJ/m ²	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	39.9	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	15.8	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Strength at Yield	60	MPa	ASTM D 638
Tensile Strength at Break	47	MPa	ASTM D 638
Elongation at Yield	4.5	%	ASTM D 638
Elongation at Break	10.5	%	ASTM D 638
Izod Impact notched, 1/8 in	510	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	180	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties

	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 0.45 MPa	146	°C	ISO 75-1/-2
Vicat softening temperature, B	151	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	153	°C	ISO 306
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	1	mm	-
ASTM Data			
DTUL @ 264 psi	121	°C	ASTM D 648

Other properties

	Value	Unit	Test Standard
Density	1080	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding

	Value	Unit	Test Standard
Pre-drying - Temperature	90 - 100	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	255 - 275	°C	-

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Zone 1	235 - 255	°C	-
Zone 2	255 - 275	°C	-
Zone 3	255 - 275	°C	-

Characteristics**Additives**

Flame retarding agent

Regional Availability

Asia Pacific

Special Characteristics

Flame retardant