

Product Texts

NORYL™ NH6010B resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This high performance, injection moldable and extrusion grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V0 at 1.5mm. NORYL NH6010B resin features low smoke production upon burning, high heat resistance, very low specific gravity, and compliance to IEC. In addition, this material is heat stabilized and impact modified. It is an excellent candidate for conduit and trunking applications in transportation, building + construction, and electrical markets. *see NORYL LS6010 resin for FAR 25.853 requirements.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	5	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	5.6	g/10min	ASTM D 1238
Temperature	280	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2440	MPa	ISO 527
Yield stress	64	MPa	ISO 527
Yield strain	4.7	%	ISO 527
Stress at break	58	MPa	ISO 527
Strain at break	8.3	%	ISO 527
Flexural modulus	2360	MPa	ISO 178
Charpy notched impact strength, +23°C	20	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	18	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	14	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2220	MPa	ASTM D 638
Tensile Strength at Yield	64	MPa	ASTM D 638
Tensile Strength at Break	53	MPa	ASTM D 638
Elongation at Yield	4.6	%	ASTM D 638
Elongation at Break	20	%	ASTM D 638
Flexural Modulus	2390	MPa	ASTM D 790
Izod Impact notched, 1/8 in	300	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	181	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	124	°C	ISO 75-1/-2
Vicat softening temperature, B	143	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	146	°C	ISO 306
ASTM Data			
DTUL @ 264 psi	122	°C	ASTM D 648
Vicat Temperature	143	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	2.7	-	IEC 62631-2-1
Dissipation factor, 1MHz	29	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
ASTM Data			
Dielectric Strength, Short Time	34.1	kV/mm	ASTM D 149
Dissipation Factor, 1 MHz	0.0029	-	ASTM D 150
Dielectric Constant, 1 MHz	2.78	-	ASTM D 150

NORYL™ Resin NH6010B - Europe

(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

Surface Resistivity	>1E15	Ohm	ASTM D 257
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Water absorption	0.2	%	Sim. to ISO 62
Humidity absorption	0.05	%	Sim. to ISO 62
Density	1110	kg/m ³	ISO 1183
Density	1110	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	95 - 105	°C	-
Pre-drying - Time	2 - 4	h	-
Melt temperature	280 - 305	°C	-
Mold temperature	65 - 100	°C	-
Zone 1	280 - 295	°C	-
Zone 2	290 - 300	°C	-
Zone 3	295 - 305	°C	-
Screw speed	40 - 80	rpm	-

Characteristics**Processing**

Injection Molding, Profile Extrusion, Sheet Extrusion

Special Characteristics

Flame retardant, High impact or impact modified

Additives

Flame retarding agent

Regional Availability

Europe