

Product Texts

NORYL™ NH7010 resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS) and exhibits an excellent balance of non-brominated, non-chlorinated flame retardance, high heat resistance, good flow, and low specific gravity for light weight parts. This injection moldable grade carries UL94 flame ratings of 5VA at 2mm and V0 at 1.5mm along with a UL746C Outdoor Suitability rating of F1. NORYL NH7010 resin is an excellent candidate for applications such as electrical enclosures and solar/PV junction boxes.

UL Yellow Card Link [E121562-100282556](https://www.ul.com/Products/Plastics/Engineering-Plastics/NORYL-NH7010)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	10	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	10.1	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2500	MPa	ISO 527
Yield stress	69	MPa	ISO 527
Yield strain	4.9	%	ISO 527
Stress at break	63	MPa	ISO 527
Strain at break	8.4	%	ISO 527
Flexural modulus	2520	MPa	ISO 178
Charpy notched impact strength, +23°C	21	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	8	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	2250	MPa	ASTM D 638
Tensile Strength at Yield	68	MPa	ASTM D 638
Tensile Strength at Break	49	MPa	ASTM D 638
Elongation at Yield	5.2	%	ASTM D 638
Elongation at Break	41	%	ASTM D 638
Flexural Modulus	2470	MPa	ASTM D 790
Izod Impact notched, 1/8 in	223	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	89	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	139	°C	ISO 75-1/-2
Vicat softening temperature, B	161	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	162	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Burning behav. 5V at thickness h	5VA	class	IEC 60695-11-20
Thickness tested	2.0	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
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Glow Wire Ignition Temperature (GWIT)	825	°C	IEC 60695-2-13
GWIT - thickness tested (1)	1	mm	-
Glow Wire Ignition Temperature (GWIT)	825	°C	IEC 60695-2-13
GWIT - thickness tested (2)	2	mm	-
Glow Wire Ignition Temperature (GWIT)	800	°C	IEC 60695-2-13
GWIT - thickness tested (3)	3	mm	-
ASTM Data			
DTUL @ 264 psi	139	°C	ASTM D 648

NORYL™ Resin NH7010 - Americas
(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

Vicat Temperature **160** °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	1090	kg/m ³	ISO 1183
Density	1090	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110 - 120	°C	-
Pre-drying - Time	3 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	300 - 325	°C	-
Mold temperature	80 - 110	°C	-
Zone 1	265 - 315	°C	-
Zone 2	275 - 320	°C	-
Zone 3	290 - 325	°C	-
Screw speed	20 - 100	rpm	-
Back pressure	0.3 - 0.7	MPa	-

Characteristics

Processing

Injection Molding

Special Characteristics

Flame retardant

Additives

Flame retarding agent

Regional Availability

North America