

Product Texts

NORYL™ NH7010HV resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This injection moldable grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V0 at 1.5mm along with a UL746C Outdoor Suitability rating of F1. NORYL NH7010HV resin is a higher flow version of NH7010 resin and offers a good balance of affordable high heat, flow, hydrolytic stability, excellent creep resistance, dimensional stability. This material is a good candidate for outdoor housings / enclosures and photovoltaic / solar junction box applications.

UL Yellow Card Link [E121562-104159890](https://www.ul.com/yellow-card/E121562-104159890)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	20	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	5	kg	-
ASTM Data			
Melt Flow Index, MFI	20.1	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ASTM Data			
Tensile Modulus	2180	MPa	ASTM D 638
Tensile Strength at Break	59	MPa	ASTM D 638
Elongation at Yield	5	%	ASTM D 638
Elongation at Break	12	%	ASTM D 638
Flexural Modulus	2460	MPa	ASTM D 790
Izod Impact notched, 1/8 in	227	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	69	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, 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	-
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
Vicat Temperature	159	°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	%	-
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

Additives

Flame retarding agent

Special Characteristics

Flame retardant

Chemical Resistance

Hydrolytically Stable

Regional Availability

Europe