

Product Texts

NORYL™ NH5110E resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This extrusion grade contains non-brominated, non-chlorinated flame retardant and carries a UL94 flame rating of V1 at 1.5mm along with a Vicat B/120 temperature of 138C according to ISO 306. NORYL NH5110E resin was developed for low-beard growth during profile extrusion and is an excellent candidate for electrical conduit and cable management applications.

UL Yellow Card Link [E45329-100158340](https://www.ul.com/yellow-card/E45329-100158340)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	9	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2500	MPa	ISO 527
Yield stress	64	MPa	ISO 527
Yield strain	4	%	ISO 527
Stress at break	52	MPa	ISO 527
Strain at break	18	%	ISO 527
Flexural modulus	2400	MPa	ISO 178
Charpy notched impact strength, +23°C	26	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	11	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	24	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	9	kJ/m ²	ISO 180/1A

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	114	°C	ISO 75-1/-2
Vicat softening temperature, B	149	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	138	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-1	class	IEC 60695-11-10
Thickness tested	1.5	mm	-

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	2.6	-	IEC 62631-2-1
Dissipation factor, 1MHz	17	E-4	IEC 62631-2-1
Electric strength	46	kV/mm	IEC 60243-1
ASTM Data			
Dissipation Factor, 1 MHz	0.0017	-	ASTM D 150
Dielectric Constant, 1 MHz	2.6	-	ASTM D 150

Other properties	Value	Unit	Test Standard
Water absorption	0.15	%	Sim. to ISO 62
Humidity absorption	0.06	%	Sim. to ISO 62
Density	1090	kg/m ³	ISO 1183

Characteristics

Processing

Profile Extrusion

Special Characteristics

Flame retardant

Additives

Flame retarding agent

Regional Availability

Europe