

Product Texts

NORYL PX1860 is an unfilled, injection moldable modified polyphenylene ether resin. Designed for good dimensional stability and high flow, this resin also uses non-chlorinated, non-brominated FR additives to achieve a V1 UL94 rating at 1.5 mm with a specific density of 1.1 g/cm³. NORYL PX1860 may be an excellent material candidate for Flat Panel TV enclosure applications requiring good rheological properties, heat resistance, hydrolysis resistance, low density and thin wall flame resistance.

UL Yellow Card Link [E45329-100037005](https://www.ul.com/yellowcard/E45329-100037005)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	34	cm ³ /10min	ISO 1133
Temperature	280	°C	-
Load	2.16	kg	-
Density of melt	975	kg/m ³	-
Thermal conductivity of melt	0.17	W/(m K)	-
Spec. heat capacity of melt	1910	J/(kg K)	-
Ejection temperature	93	°C	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2510	MPa	ISO 527
Yield stress	61	MPa	ISO 527
Yield strain	3.5	%	ISO 527
Stress at break	53	MPa	ISO 527
Strain at break	8	%	ISO 527
Flexural modulus	2420	MPa	ISO 178
Charpy notched impact strength, +23°C	6	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	6	kJ/m ²	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	4	kJ/m ²	ISO 180/1A
ASTM Data			
Tensile Modulus	3140	MPa	ASTM D 638
Tensile Strength at Yield	52	MPa	ASTM D 638
Tensile Strength at Break	49	MPa	ASTM D 638
Elongation at Yield	3.6	%	ASTM D 638
Elongation at Break	7.3	%	ASTM D 638
Flexural Modulus	2770	MPa	ASTM D 790
Izod Impact notched, 1/8 in	38	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	27	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	92	°C	ISO 75-1/-2
Vicat softening temperature, B	111	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	114	°C	ISO 306
Coeff. of linear therm. expansion, parallel	85.2	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	85.8	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-1	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Glow Wire Flammability Index (GWFI)	960	°C	IEC 60695-2-12
GWFI - thickness tested (3)	3	mm	-
ASTM Data			
DTUL @ 264 psi	90	°C	ASTM D 648
Vicat Temperature	110	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 1MHz	2.7	-	IEC 62631-2-1
Dissipation factor, 1MHz	200	E-4	IEC 62631-2-1

NORYL™ Resin PX1860 - Europe
(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Comparative tracking index	250	-	IEC 60112
ASTM Data			
Dissipation Factor, 1 MHz	0.02	-	ASTM D 150
Dielectric Constant, 1 MHz	2.7	-	ASTM D 150
Surface Resistivity	1E14	Ohm	ASTM D 257
Volume Resistivity	>1E15	Ohm*cm	ASTM D 257

Other properties	Value	Unit	Test Standard
Water absorption	0.13	%	Sim. to ISO 62
Humidity absorption	0.02	%	Sim. to ISO 62
Density	1100	kg/m ³	ISO 1183
Density	1100	kg/m ³	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	70 - 80	°C	-
Pre-drying - Time	2 - 3	h	-
Melt temperature	260 - 295	°C	-
Mold temperature	45 - 70	°C	-
Feed temperature	65 - 85	°C	-
Zone 1	210 - 230	°C	-
Zone 2	240 - 270	°C	-
Zone 3	260 - 295	°C	-

Characteristics**Processing**

Injection Molding

Regional Availability

Europe