

**Product Texts**

NORYL™ FP5140HF resin is an impact modified, unreinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This injection moldable grade contains non-brominated, non-chlorinated flame retardant with a UL94 flame rating of V1 at 1.5mm. NORYL FP5140HF resin was designed to have very good dimensional stability with high flow and exhibits good rheological properties, high heat resistance, hydrolysis resistance, and very low density. The combination of these properties makes this material an excellent candidate for Flat Panel TV enclosure applications.

UL Yellow Card Link [E121562-101543493](https://www.ul.com/yellow-card/E121562-101543493)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	48	cm <sup>3</sup> /10min	ISO 1133
Temperature	280	°C	-
Load	2.16	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	2530	MPa	ISO 527
Yield stress	48	MPa	ISO 527
Yield strain	2.7	%	ISO 527
Stress at break	44	MPa	ISO 527
Strain at break	21.4	%	ISO 527
Flexural modulus	2450	MPa	ISO 178
Charpy notched impact strength, +23°C	7	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	6	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	5	kJ/m <sup>2</sup>	ISO 180/1A
<b>ASTM Data</b>			
Tensile Modulus	2940	MPa	ASTM D 638

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	80	°C	ISO 75-1/-2
Vicat softening temperature, B	97	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	100	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	V-1	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
<b>ASTM Data</b>			
DTUL @ 264 psi	78	°C	ASTM D 648
Vicat Temperature	97	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	0.18	%	Sim. to ISO 62
Humidity absorption	0.05	%	Sim. to ISO 62
Density	1110	kg/m <sup>3</sup>	ISO 1183
Density	1110	kg/m <sup>3</sup>	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	250 - 285	°C	-
Mold temperature	40 - 65	°C	-
Feed temperature	60 - 80	°C	-
Zone 1	200 - 220	°C	-
Zone 2	230 - 260	°C	-
Zone 3	250 - 285	°C	-

**Characteristics**

## **NORYL™ Resin FP5140HF - Americas**

(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

### **Processing**

Injection Molding

### **Special Characteristics**

Flame retardant, High impact or impact modified

### **Additives**

Flame retarding agent

### **Regional Availability**

North America