

**Product Texts**

NORYL™ 731F resin is a non-reinforced blend of polyphenylene ether (PPE) + high impact polystyrene (HIPS). This NSF/ANSI 61\* listed for potable water use, FDA Food Contact compliant, injection moldable grade exhibits good surface appearance, high ductility, and good impact resistance along with low moisture absorption, creep resistance, dimensional stability, and hydrolytic stability. NORYL 731F resin is an excellent candidate for a variety of water management applications such as valves, filtration components, and water meter internals.

UL Yellow Card Link [E121562-221150](https://www.ul.com/yellow-card/E121562-221150)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	9	cm <sup>3</sup> /10min	ISO 1133
Temperature	280	°C	-
Load	5	kg	-
<b>ASTM Data</b>			
Melt Flow Index, MFI	9.2	g/10min	ASTM D 1238
Temperature	280	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	2700	MPa	ISO 527
Yield stress	57	MPa	ISO 527
Yield strain	3.5	%	ISO 527
Stress at break	51	MPa	ISO 527
Strain at break	17	%	ISO 527
Flexural modulus	2550	MPa	ISO 178
Charpy notched impact strength, +23°C	17	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, +23°C, 4mm	17	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	2860	MPa	ASTM D 638
Tensile Strength at Yield	58	MPa	ASTM D 638
Tensile Strength at Break	49	MPa	ASTM D 638
Elongation at Yield	7.2	%	ASTM D 638
Elongation at Break	28.1	%	ASTM D 638
Flexural Modulus	2640	MPa	ASTM D 790
Rockwell Hardness	R 119	-	ASTM D 785
Izod Impact notched, 1/8 in	213	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	133	J/m	ASTM D 256
Temperature	-40	°C	-

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Temp. of deflection under load, 1.80 MPa	120	°C	ISO 75-1/-2
Vicat softening temperature, B	140	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	143	°C	ISO 306
Burning behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
<b>ASTM Data</b>			
DTUL @ 66 psi	131	°C	ASTM D 648
DTUL @ 264 psi	117	°C	ASTM D 648
Vicat Temperature	148	°C	ASTM D 1525

Electrical properties	Value	Unit	Test Standard
<b>ASTM Data</b>			
Dielectric Strength, Short Time	21.6	kV/mm	ASTM D 149
Dissipation Factor, 60 Hz	0.0004	-	ASTM D 150
Dielectric Constant, 60 Hz	2.65	-	ASTM D 150

**NORYL™ Resin 731F - Americas**

(PPE+PS)

Saudi Basic Industries Corporation (SABIC)

Other properties	Value	Unit	Test Standard
Water absorption	<b>0.23</b>	%	Sim. to ISO 62
Humidity absorption	<b>0.06</b>	%	Sim. to ISO 62
Density	<b>1060</b>	kg/m <sup>3</sup>	ISO 1183
Density	<b>1060</b>	kg/m <sup>3</sup>	ASTM D 792

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	<b>105 - 110</b>	°C	-
Pre-drying - Time	<b>3 - 4</b>	h	-
Processing humidity	<b>≤0.02</b>	%	-
Melt temperature	<b>280 - 310</b>	°C	-
Mold temperature	<b>75 - 105</b>	°C	-
Zone 1	<b>250 - 300</b>	°C	-
Zone 2	<b>260 - 305</b>	°C	-
Zone 3	<b>270 - 310</b>	°C	-
Screw speed	<b>20 - 100</b>	rpm	-
Back pressure	<b>0.3 - 0.7</b>	MPa	-

**Characteristics****Processing**

Injection Molding

**Certifications**

Food contact, Food approval FDA 21 CFR

**Chemical Resistance**

Hydrolytically Stable

**Regional Availability**

North America