

**Product Texts**

NORYL™ FE1410PW resin is a 10% glass reinforced blend of polyphenylene ether (PPE) + crystal clear polystyrene (ccPS). This injection moldable material is FC EU, FDA food contact compliant, NSF/ANSI 61\*, ACS, WRAS, KTW, and W270 listed for global potable water use. NORYL FE1410PW resin exhibits excellent long-term hydrolytic stability, very low moisture absorption, heat / hot water resistance and is an excellent candidate for a variety of water management applications such as pump housings, impellers, shower/faucet, membrane housings and valves. \*NSF certification is color dependent.

UL Yellow Card Link [E45329-101521743](https://www.ul.com/yellowcard/E45329-101521743)

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
Melt volume-flow rate, MVR	32	cm <sup>3</sup> /10min	ISO 1133
Temperature	280	°C	-
Load	10	kg	-

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	4930	MPa	ISO 527
Stress at break	94	MPa	ISO 527
Strain at break	2.7	%	ISO 527
Flexural modulus	4880	MPa	ISO 178
Charpy impact strength, +23°C	14	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	14	kJ/m <sup>2</sup>	ISO 179/1eU
Izod impact strength, +23°C, 4mm	13	kJ/m <sup>2</sup>	ISO 180/1U
Izod impact strength, -30°C, 4mm	13	kJ/m <sup>2</sup>	ISO 180/1U
Izod notched impact strength, +23°C, 4mm	4	kJ/m <sup>2</sup>	ISO 180/1A
Izod notched impact strength, -30°C, 4mm	4	kJ/m <sup>2</sup>	ISO 180/1A

ASTM Data	Value	Unit	Test Standard
Tensile Modulus	4770	MPa	ASTM D 638
Tensile Strength at Break	94	MPa	ASTM D 638
Elongation at Break	2.8	%	ASTM D 638
Flexural Modulus	4860	MPa	ASTM D 790
Izod Impact notched, 1/8 in	35	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	35	J/m	ASTM D 256
Temperature	-30	°C	-
Izod Impact unnotched, 1/8 in	230	J/m	ASTM D 256

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
Vicat softening temperature, A	146	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	140	°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 @ 264 psi	127	°C	ASTM D 648

Other properties	Value	Unit	Test Standard
Water absorption	0.2	%	Sim. to ISO 62
Density	1130	kg/m <sup>3</sup>	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 120	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.02	%	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 120	°C	-
Feed temperature	60 - 80	°C	-
Zone 1	250 - 270	°C	-
Zone 2	270 - 290	°C	-

Zone 3

290 - 310

°C

-

### Characteristics

#### Processing

Injection Molding

#### Chemical Resistance

Hydrolytically Stable

#### Certifications

Food contact, Food approval FDA 21 CFR

#### Regional Availability

Europe