

Product Texts

NORYL™ FE1740PW resin is a 40% 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 FE1740PW 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.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	20	cm ³ /10min	ISO 1133
Temperature	300	°C	-
Load	10	kg	-
ASTM Data			
Melt Flow Index, MFI	10	g/10min	ASTM D 1238
Temperature	300	°C	-
Load	5	kg	-

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	11300	MPa	ISO 527
Stress at break	155	MPa	ISO 527
Strain at break	1.8	%	ISO 527
Flexural modulus	9500	MPa	ISO 178
Charpy impact strength, +23°C	30	kJ/m ²	ISO 179/1eU
Izod impact strength, +23°C, 4mm	30	kJ/m ²	ISO 180/1U
Izod impact strength, -30°C, 4mm	30	kJ/m ²	ISO 180/1U
ASTM Data			
Tensile Modulus	13800	MPa	ASTM D 638
Tensile Strength at Break	165	MPa	ASTM D 638
Elongation at Break	1.8	%	ASTM D 638
Flexural Modulus	11700	MPa	ASTM D 790
Izod Impact notched, 1/8 in	108	J/m	ASTM D 256
Izod Impact notched, Low-Temperature	90	J/m	ASTM D 256
Temperature	-30	°C	-

Thermal properties	Value	Unit	Test Standard
ISO Data			
Temp. of deflection under load, 1.80 MPa	147	°C	ISO 75-1/-2
Vicat softening temperature, B	152	°C	ISO 306
Vicat softening temperature, 120°C/h 50N	161	°C	ISO 306
ASTM Data			
DTUL @ 264 psi	148	°C	ASTM D 648
Vicat Temperature	151	°C	ASTM D 1525

Other properties	Value	Unit	Test Standard
Water absorption	0.2	%	Sim. to ISO 62
Humidity absorption	0.06	%	Sim. to ISO 62
Density	1400	kg/m ³	ISO 1183
Density	1400	kg/m ³	ASTM D 792

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

Asia Pacific