NORYL™ Resin FE1740PW - Americas

(PPE+PS)-GF40 — Saudi Basic Industries Corporation (SABIC)

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**	cm³/10min	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/m²	ISO 179/1eU
Izod impact strength, +23°C, 4mm	**30**	kJ/m²	ISO 180/1U
Izod impact strength, -30°C, 4mm	**30**	kJ/m²	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/m³	ISO 1183
Density	**1400**	kg/m³	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

Certifications
Food contact, Food approval FDA 21 CFR

Chemical Resistance
Hydrolytically Stable

Regional Availability
North America