

Product Texts

NORYL™ FE1520PW resin is a 20% 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 FE1520PW 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 | 22 | cm ³ /10min | ISO 1133 |
| Temperature | 280 | °C | - |
| Load | 10 | kg | - |

| Mechanical properties | Value | Unit | Test Standard |
|------------------------------------------|-------|-------------------|---------------|
| ISO Data | | | |
| Tensile Modulus | 7170 | MPa | ISO 527 |
| Stress at break | 119 | MPa | ISO 527 |
| Strain at break | 2.6 | % | ISO 527 |
| Flexural modulus | 6040 | MPa | ISO 178 |
| Charpy impact strength, +23°C | 30 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength, -30°C | 5 | kJ/m ² | ISO 179/1eA |
| Izod impact strength, +23°C, 4mm | 25 | kJ/m ² | ISO 180/1U |
| Izod impact strength, -30°C, 4mm | 23 | kJ/m ² | ISO 180/1U |
| Izod notched impact strength, +23°C, 4mm | 6 | kJ/m ² | ISO 180/1A |
| Izod notched impact strength, -30°C, 4mm | 4 | kJ/m ² | ISO 180/1A |
| Ball indentation hardness | 220 | MPa | ISO 2039-1 |

| | | | |
|--------------------------------------|------|-----|------------|
| ASTM Data | | | |
| Tensile Modulus | 7100 | MPa | ASTM D 638 |
| Tensile Strength at Break | 119 | MPa | ASTM D 638 |
| Elongation at Break | 2.6 | % | ASTM D 638 |
| Flexural Modulus | 6970 | MPa | ASTM D 790 |
| Izod Impact notched, 1/8 in | 65 | J/m | ASTM D 256 |
| Izod Impact notched, Low-Temperature | 45 | J/m | ASTM D 256 |
| Temperature | -30 | °C | - |
| Izod Impact unnotched, 1/8 in | 400 | J/m | ASTM D 256 |

| Thermal properties | Value | Unit | Test Standard |
|------------------------------------------|-------|------|---------------|
| ISO Data | | | |
| Vicat softening temperature, A | 150 | °C | ISO 306 |
| Vicat softening temperature, 120°C/h 50N | 144 | °C | ISO 306 |
| ASTM Data | | | |
| DTUL @ 264 psi | 135 | °C | ASTM D 648 |

| Other properties | Value | Unit | Test Standard |
|------------------|-------|-------------------|----------------|
| Water absorption | 0.2 | % | Sim. to ISO 62 |
| Density | 1240 | kg/m ³ | 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 | 290 - 320 | °C | - |
| Mold temperature | 80 - 120 | °C | - |
| Feed temperature | 60 - 80 | °C | - |
| Zone 1 | 270 - 280 | °C | - |
| Zone 2 | 280 - 300 | °C | - |
| Zone 3 | 300 - 310 | °C | - |

NORYL™ Resin FE1520PW - Asia

(PPE+PS)-GF20

Saudi Basic Industries Corporation (SABIC)

Characteristics

Processing

Injection Molding

Certifications

Food contact, Food approval FDA 21 CFR

Chemical Resistance

Hydrolytically Stable

Regional Availability

Asia Pacific