Kynar® 761
PVDF

Kynar® 761 resin

Kynar® resins are fluorinated thermoplastic homopolymers.

Outstanding characteristics: chemical resistance, imperviousness to UV, high barrier properties, high purity, good mechanical and thermo-mechanical properties.

Main applications: corrosion protection in the chemical industry, coating (painting, co-extrusion), off-shore, wire and cable, PPA, Battery.

Rheological properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
<th>Test Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melt volume-flow rate, MVR</td>
<td>1.3</td>
<td>cm³/10min</td>
<td>ISO 1133</td>
</tr>
<tr>
<td>Temperature</td>
<td>230</td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Load</td>
<td>10</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>Molding shrinkage, parallel</td>
<td>3.0</td>
<td>%</td>
<td>ISO 2944, 2577</td>
</tr>
<tr>
<td>Molding shrinkage, normal</td>
<td>3.0</td>
<td>%</td>
<td>ISO 2944, 2577</td>
</tr>
</tbody>
</table>

Mechanical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
<th>Test Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Modulus</td>
<td>2000</td>
<td>MPa</td>
<td>ISO 527-1/-2</td>
</tr>
<tr>
<td>Yield stress</td>
<td>50</td>
<td>MPa</td>
<td>ISO 527-1/-2</td>
</tr>
<tr>
<td>Yield strain</td>
<td>9</td>
<td>%</td>
<td>ISO 527-1/-2</td>
</tr>
<tr>
<td>Nominal strain at break</td>
<td>&gt;50</td>
<td>%</td>
<td>ISO 527-1/-2</td>
</tr>
<tr>
<td>Charpy notched impact strength, +23°C</td>
<td>50</td>
<td>kJ/m²</td>
<td>ISO 179/1eA</td>
</tr>
</tbody>
</table>

Thermal properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
<th>Test Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting temperature, 10°C/min</td>
<td>170</td>
<td>°C</td>
<td>ISO 11357-1/-3</td>
</tr>
<tr>
<td>Glass transition temperature, 10°C/min</td>
<td>-40</td>
<td>°C</td>
<td>ISO 11357-1/-2</td>
</tr>
<tr>
<td>Temp. of deflection under load, 1.80 MPa</td>
<td>104</td>
<td>°C</td>
<td>ISO 75-1/-2</td>
</tr>
<tr>
<td>Coeff. of linear therm. expansion, parallel</td>
<td>150</td>
<td>E-6/K</td>
<td>ISO 11359-1/-2</td>
</tr>
<tr>
<td>Burning Behav. at 1.5 mm nom. thickn.</td>
<td>V-0</td>
<td>class</td>
<td>IEC 60695-11-10</td>
</tr>
<tr>
<td>Yellow Card available</td>
<td>yes</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Oxygen index</td>
<td>43</td>
<td>%</td>
<td>ISO 4589-1/-2</td>
</tr>
</tbody>
</table>

Other properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
<th>Test Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water absorption</td>
<td>0.02</td>
<td>%</td>
<td>Sim. to ISO 62</td>
</tr>
</tbody>
</table>

Rheological calculation properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Unit</th>
<th>Test Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density of melt</td>
<td>1780</td>
<td>kg/m³</td>
<td></td>
</tr>
<tr>
<td>Thermal conductivity of melt</td>
<td>0.19</td>
<td>W/(m K)</td>
<td></td>
</tr>
<tr>
<td>Min. mold temperature</td>
<td>20</td>
<td>°C</td>
<td></td>
</tr>
<tr>
<td>Max. mold temperature</td>
<td>90</td>
<td>°C</td>
<td></td>
</tr>
</tbody>
</table>
Kynar® 761
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Min. melt temperature 190 °C
Max. melt temperature 270 °C

Characteristics

Processing
Other Extrusion

Delivery form
Powder

Chemical Media Resistance

Acids
✓ Acetic Acid (5% by mass) (23°C)
✓ Citric Acid solution (10% by mass) (23°C)
✓ Lactic Acid (10% by mass) (23°C)
✓ Hydrochloric Acid (36% by mass) (23°C)
✓ Nitric Acid (40% by mass) (23°C)
✓ Sulfuric Acid (38% by mass) (23°C)
✓ Sulfuric Acid (5% by mass) (23°C)
✓ Chromic Acid solution (40% by mass) (23°C)

Bases
✓ Sodium Hydroxide solution (35% by mass) (23°C)
✓ Sodium Hydroxide solution (1% by mass) (23°C)
✓ Ammonium Hydroxide solution (10% by mass) (23°C)

Alcohols
✓ Isopropyl alcohol (23°C)
✓ Methanol (23°C)
✓ Ethanol (23°C)

Hydrocarbons
✓ n-Hexane (23°C)
✓ Toluene (23°C)
✓ iso-Octane (23°C)

Ketones
✗ Acetone (23°C)

Ethers
✓ Diethyl ether (23°C)

Mineral oils
✓ SAE 10W40 multigrade motor oil (23°C)
✓ SAE 10W40 multigrade motor oil (130°C)
✓ SAE 80/90 hypoid-gear oil (130°C)
✓ Insulating Oil (23°C)

Standard Fuels
✓ ISO 1817 Liquid 1 (60°C)
✓ ISO 1817 Liquid 2 (60°C)
✓ ISO 1817 Liquid 3 (60°C)
✓ ISO 1817 Liquid 4 (60°C)
✓ Standard fuel without alcohol (pref. ISO 1817 Liquid C) (23°C)
**Kynar® 761**

**PVDF**

- ✔️ Standard fuel with alcohol (pref. ISO 1817 Liquid 4) (23°C)
- ✔️ Diesel fuel (pref. ISO 1817 Liquid F) (23°C)
- ✔️ Diesel fuel (pref. ISO 1817 Liquid F) (90°C)
- ✔️ Diesel fuel (pref. ISO 1817 Liquid F) (>90°C)

**Salt solutions**
- ✔️ Sodium Chloride solution (10% by mass) (23°C)
- ✔️ Sodium Hypochlorite solution (10% by mass) (23°C)
- ✔️ Sodium Carbonate solution (20% by mass) (23°C)
- ✔️ Sodium Carbonate solution (2% by mass) (23°C)
- ✔️ Zinc Chloride solution (50% by mass) (23°C)

**Other**
- ✗ Ethyl Acetate (23°C)
- ✔️ Hydrogen peroxide (23°C)
- ✔️ Ethylene Glycol (50% by mass) in water (108°C)
- ✔️ Water (23°C)
- ✔️ Deionized water (90°C)
- ✔️ Phenol solution (5% by mass) (23°C)