Kynar® 740

Polyvinylidene Fluoride

Arkema High Performance Polymers

PROSPECTOR®

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Technical Data

Product Description

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.

Kynar® 740 resin is a standard grade of granules for extrusion of tubes and plaques, compression and transfer molding. This product is ANSI/NSF Standard 61 certified.

A powder form is available as Kynar® 741 resin.

General

Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet (English)		
UL Yellow Card [2]	• E54699-636465		
Search for UL Yellow Card	• Arkema High Performance Polymers		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Additive	• Heat Stabilizer	• UV Stabilizer	
Features	• Barrier Resin • Chemical Resistant • Heat Stabilized	• High Purity • Homopolymer • Light Stabilized	• Paintable • UV Resistant • UV Stabilized
Uses	• Coating Applications	• Tubing	• Wire & Cable Applications
Agency Ratings	• NSF STD-61		
Forms	• Granules	• Pellets	
Processing Method	• Coating • Coextrusion • Compression Molding	• Extrusion • Profile Extrusion • Resin Transfer Molding	• Sheet Extrusion • Thermoforming
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1)	• Specific Volume vs Temperature (ISO 11403-2) • Viscosity vs. Shear Rate (ISO 11403-2)	

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.78 g/cm³	1.78 g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (230°C/5.0 kg)	1.1 cm³/10min	1.1 cm³/10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	2.0 %	2.0 %	
Flow	2.0 %	2.0 %	
Water Absorption			ISO 62
Saturation, 73°F (23°C)	0.030 %	0.030 %	
Equilibrium, 73°F (23°C), 50% RH	0.015 %	0.015 %	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Modulus	247000 psi	1700 MPa	ISO 527-1
Tensile Stress (Yield)	7250 psi	50.0 MPa	ISO 527-2
Tensile Strain (Yield)	7.0 %	7.0 %	ISO 527-2
Nominal Tensile Strain at Break	> 50 %	> 50 %	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	152000 psi	1050 MPa	
1000 hr	82700 psi	570 MPa	

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Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-22°F (-30°C)	2.4 ft·lb/in²	5.0 kJ/m²	
73°F (23°C)	6.7 ft·lb/in²	14 kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F (-30°C)	89 ft·lb/in²	190 kJ/m²	
73°F (23°C)	120 ft·lb/in²	240 kJ/m²	
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			
66 psi (0.45 MPa), Unannealed	275 °F	135 °C	ISO 75-2/B
264 psi (1.8 MPa), Unannealed	221 °F	105 °C	ISO 75-2/A
Glass Transition Temperature [4]	-40.0 °F	-40.0 °C	ISO 11357-2
Vicat Softening Temperature	275 °F	135 °C	ISO 306/B50
Melting Temperature [4]	334 °F	168 °C	ISO 11357-3
CLTE - Flow	8.3E-5 in/in/°F	1.5E-4 cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Surface Resistivity	> 1.0E+15 ohms	> 1.0E+15 ohms	IEC 60093
Volume Resistivity	2.0E+14 ohms·cm	2.0E+14 ohms·cm	IEC 60093
Electric Strength	530 V/mil	21 kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	11.0	11.0	
1 MHz	8.00	8.00	
Dissipation Factor			IEC 60250
100 Hz	0.026	0.026	
1 MHz	0.23	0.23	
Comparative Tracking Index	600 V	600 V	IEC 60112
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flammability Classification			IEC 60695-11-10, -20
0.03 in (0.8 mm)	V-0	V-0	
0.06 in (1.6 mm)	V-0	V-0	
Oxygen Index	43 %	43 %	ISO 4589-2

Notes

[1] These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

[2] A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

[3] Typical properties: these are not to be construed as specifications.

[4] 10°C/min

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