CAMPUS® Datasheet

Kynar® 720E - PVDF
ARKEMA

Product Texts

Kynar® resins are fluorinated thermoplastic homopolymers.

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

Kynar® 720 E resin is a standard grade of granules for injection molding. This product is NSF/ANSI/CAN61 certified. This product is compliant with the EU positive list.

Main applications:

- corrosion protection in the chemical industry
- coating (painting, co-extrusion)
- off shore
- wire and cable
- water transportation

Rheological properties	Value	Unit	Test Standard
Melt volume-flow rate, MVR	**18**	cm³/10min	ISO 1133
Temperature	**230**	°C	ISO 1133
Load	**5**	kg	ISO 1133
Molding shrinkage, parallel	**2.0**	%	ISO 294-4, 2577
Molding shrinkage, normal	**2.0**	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	**2200**	MPa	ISO 527-1/-2
Yield stress	**54**	MPa	ISO 527-1/-2
Yield strain	**8**	%	ISO 527-1/-2
Nominal strain at break	**>50**	%	ISO 527-1/-2
Charpy impact strength, +23°C	**208**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**189**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**8**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**5**	kJ/m²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	**169**	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	**-40**	°C	ISO 11357-1/-2
Temp. of deflection under load, 1.80 MPa	**110**	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	**132**	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	**139**	°C	ISO 306
Coeff. of linear therm. expansion, parallel	**140**	E-6/K	ISO 11359-1/-2
Burning behavior at 1.5 mm nominal thickness	**V-0**	class	IEC 60695-11-10
Thickness tested (1.5)	**1.6**	mm	IEC 60695-11-10
Yellow Card available	**Yes**	-	-
Burning behavior at thickness h	**V-0**	class	IEC 60695-11-10

Thickness tested (h)	**0.8**	mm	IEC 60695-11-10
Oxygen index	**66**	%	ISO 4589-1/-2

Electrical properties	**Value**	**Unit**	**Test Standard**
Relative permittivity, 100Hz	**9**	-	IEC 62631-2-1
Relative permittivity, 1MHz	**7**	-	IEC 62631-2-1
Dissipation factor, 100Hz	**320**	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	**2140**	E-4	IEC 62631-2-1
Volume resistivity	**2E12**	Ohm*m	IEC 62631-3-1
Surface resistivity	**>1E15**	Ohm	IEC 62631-3-2
Electric strength	**21**	kV/mm	IEC 60243-1
Comparative tracking index	**600**	-	IEC 60112

Other properties	**Value**	**Unit**	**Test Standard**
Water absorption	**0.02**	%	Sim. to ISO 62
Humidity absorption	**0.015**	%	Sim. to ISO 62
Density	**1780**	kg/m³	ISO 1183

Characteristics

Processing
Injection Molding, Film Extrusion

Delivery form
Pellets

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)
- 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)

This database provides the main properties of technical thermoplastics marketed by ARKEMA.