+135-3858-6433 (GuangDong)
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ARKEMA

ALBIS

# Kynar® 720 MED

PVDF ARKEMA

**Kynar® resins** are fluorinated thermoplastic homopolymers.

**Outstanding characteristics:** chemical resistance, imperviousness to UV, high barrier properties, high purity, good mechanical and thermo-mechanical properties,resistant to gamma, steam and ETO sterilization.

**Kynar® 720 MED resin** is a standard grade of granules for extrusion and injection molding. This product is compliant with the EU positive list. Upon request, letters regarding USP Class VI and ISO10993 part 4 and 5 compliance can be provided.

**Main applications:**

- medical tubing
- flexible injected parts
- pharmaceutical packaging

| Rheological properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Melt volume-flow rate, MVR | 14.8 | cm³/10min | ISO 1133 |
| Temperature | 230 | °C | - |
| Load | 5 | kg | - |
| Molding shrinkage, parallel | 2.0 | % | ISO 294-4, 2577 |
| Molding shrinkage, normal | 2.0 | % | ISO 294-4, 2577 |

| Mechanical Properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Tensile Modulus | 2200 | MPa | ISO 527 |
| Yield stress | 54 | MPa | ISO 527 |
| Yield strain | 8 | % | ISO 527 |
| Nominal strain at break | >50 | % | ISO 527 |
| Impact Strength (Charpy), +23°C | 208 | kJ/m² | ISO 179/1eU |
| Impact Strength (Charpy), -30°C | 189 | kJ/m² | ISO 179/1eU |
| Notched Impact Strength (Charpy), +23°C | 8 | kJ/m² | ISO 179/1eA |
| Notched Impact Strength (Charpy), -30°C | 5 | kJ/m² | ISO 179/1eA |

| Thermal Properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| Melting Temperature (10°C/min) | 168 | °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) | 108 | °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 | 130 | E-6/K | ISO 11359-1/-2 |
| Burning Behav. at 1.5 mm Nom. Thickn. | V-0 | class | UL 94 |
| Thickness tested | 1.6 | mm | - |
| UL recognition | yes | - | - |
| Burning Behav. at thickness h | V-0 | class | UL 94 |
| Thickness tested | 0.8 | mm | - |
| Yellow Card available | yes | - | - |
| Oxygen index | 43 | % | ISO 4589-1/-2 |

| Electrical Properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| 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 |

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| | | | |
|---|---|---|---|
| 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 |
|---|---|---|---|
| **ISO Data** | | | |
| 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, Other Extrusion

### Delivery form
Pellets

### Special Characteristics
UV stablized, Sterilizable, Ethylene Oxide (EtO) Sterilization, Steam sterilization, Gamma irradiation sterilization

### Features
Barrier Properties, Homopolymer

### Chemical Resistance
General Chemical Resistance

### Certifications
Medical, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved

### Applications
Medical, Packaging

## 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

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- ✔ 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)