KYNAR®

TECHNICAL DATA SHEET

KYNAR® 741 POWDER

FLUORINATED HOMOPOLYMER POWDER

Kynar® resins are fluorinated thermoplastic homopolymers.
Outstanding characteristics: chemical resistance, resistance to UV, high barrier properties, high purity, good mechanical and thermo-mechanical properties.
This product is NSF/ANSI/CAN 61 certified.

TYPE

PVDF

MAIN APPLICATIONS

- additives

DELIVERY FORM

- Powder

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt viscosity, 230°C (446°F) at 100 s-1	15 - 23	kPo	ASTM D3835
Shrinkage, normal (t+24h)	2	%	ISO 294-4
Shrinkage, parallel (t+24h)	2	%	ISO 294-4
Melt flow index (MFR), 230°C / 5 kg (446°F / 11 lb)	1.5 - 3	g/10min	ASTM D1238
Melt volume flow rate (MVR), 230°C / 5 kg (446°F / 11 lb)	1.13	cm^3/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Yield stress, 23°C (73°F)	44.8 - 55.2	MPa	ASTM D638
Yield strain, 23°C (73°F)	9	%	ISO 527-1/-2
Stress at break, 23°C (73°F)	34.5 - 55.2	MPa	ASTM D638
Nominal strain at break, 23°C (73°F)	>50	%	ISO 527-1/-2
Compression strength, 23°C (73°F)	68.9 - 103	MPa	ASTM D695
Izod impact unnotched strength, 23°C (73°F)	1.07 - 4.27	kJ/m2	ASTM D256
Izod impact notched strength, 23°C (73°F)	0.0961 - 0.214	J/m	ASTM D256
Charpy notched impact strength, 23°C (73°F)	25	kJ/m2	ISO 179 1eA
Hardness, shore D	76 - 80		ASTM D2240
Flexural modulus, 23°C (73°F)	1380 - 2310	MPa	ASTM D790
Tensile modulus, 23°C (73°F)	2000	MPa	ASTM D638
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.14		ASTM D1895
Coefficient of friction static vs steel, 23°C (73°F)	0.2		ASTM D1894
Abrasion resistance, wheel CS 17, load 1 kg, 1000 cycles	5 - 9	mg	ASTM G195-13A

KYNAR® 741 POWDER

THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Glass transition temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Melting temperature, 10°C/min	170	°C	ISO 11357-1/-3
Limiting oxygen index (LOI)	44	%	ASTM D2863
Coefficient of linear thermal expansion, 23°C (73°F)	119 - 144	10E-6 / °K	ASTM D696
Specific heat temperature, 23°C (73°F)	745 - 958		ISO 11357-1/-2
Heat deflection temperature, 0.45 MPa	150	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	104	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa, 138°C/h	105 - 115	°C	ASTM D648
Heat deflection temperature, 0.45 MPa, 138°C/h	125-140	°C	ASTM D648
Thermal conductivity	0.17 - 0.19	W/m-K	ASTM D433
Burning behavior, nominal thickness 1.5 mm	V-0		IEC 60695-11-10
Yellow card available	yes		

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Dielectric constant, 1kHz	4.5 - 9.5		ASTM D150
Dielectric strength, 23°C (73,4°F)	1.7	kV/mm	ASTM D149
Volumic (transversal) resistivity, DC, 20°C (68°F)/50%RH	2.0E+12	ohm*m	ASTM D257
Relative thermal index	150		
Dissipation factor	0.01 - 0.21		ASTM D150

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.77 - 1.79	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	0.02	%	ISO 62

PACKAGING

Available packaging:
- 20 kg / 45 lb plastic drum
- 225 kg / 500 lb big bag
- 45 kg / 100 lb drums
- 45 kg / 100 lb plastic drum
- 500 kg big bag
- 500 kg / 1100 lb rigid containers

SPECIAL CHARACTERISTICS

- Flame & smoke

Headquarters: Arkema France
51, Esplanade du Général de Gaulle
92800 Puteaux – France
T +33 (0)1 49 00 80 80

Disclaimer - Please consult Arkema's disclaimer regarding the use of Arkema's products on https://www.arkema.com/global/en/products/product-safety/disclaimer/ which is incorporated herein by reference and made a part hereof.
Arkema France, a French société anonyme registered at the Trade and Companies Register of Nanterre under the number 319 632 790
arkema.com