+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

KYNAR®

TECHNICAL DATA SHEET

KYNAR® 9000F HD

FLUORINATED HOMOPOLYMER PELLET

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® 9000F HD resin is a standard grade of granules for injection molding of thin walled parts and multifilament extrusion.

TYPE

PVDF

MAIN APPLICATIONS

- Molding

DELIVERY FORM

- Pellets

RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Melt viscosity, 230°C (445°F) at 100 s-1	5 - 8	kPo	ASTM D3835
Shrinkage, Normal (t+24h)	2.0	%	ISO 294-4
Shrinkage, Parallel (t+24h)	2.0	%	ISO 294-4
Melt flow index (MFR), 230°C / 5 kg (446°F / 11 lb)	26-40	g/10min	ASTM D1238
Melt volume flow rate (MVR), 230°C / 5 kg (446°F / 11 lb)	18	cm^3/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Yield stress, 23°C (73°F)	44.8 - 55.2	MPa	ASTM D638
Stress at break, 23°C (73°F)	34.5 - 55.2	MPa	ASTM D638
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 unnotched impact strength, 23°C (73°F)	232	kJ/m2	ISO 179 1eU
Charpy unnotched impact strength, -30°C (-22°F)	218	kJ/m2	ISO 179 1eU
Charpy notched impact strength, 23°C (73°F)	11	kJ/m2	ISO 179 1eA
Charpy notched impact strength, -30°C (-22°F)	5	kJ/m2	ISO 179 1eA
Hardness, Shore D	76 - 80		ASTM D2240
Nominal strain at break, 23°C (73°F), 50 mm/min	40	%	ISO 527-1/-2
Yield strain, 23°C (73°F), 50 mm/min	8	%	ISO 527-1/-2
Flexural modulus, 23°C (73°F)	1380 - 2310	MPa	ASTM D790
Tensile modulus, 23°C (73°F)	2310	MPa	ASTM D638
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.14		ASTM D1895

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

KYNAR® 9000F HD

PROPERTIES	VALUE	UNIT	TEST STANDARD
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

THERMAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Glass transition temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Vicat softening temperature, 50N at 50°C/h	141	°C	ISO 306
Limiting oxygen index (LOI)	60	%	ASTM D2863
Coefficient of linear thermal expansion, 23°C (73°F)	119 - 144	10E-6 / °K	ASTM D696
Heat deflection temperature, 1.8 MPa	110	°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
Melting temperature, 10°C/min	171	°C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	VALUE	UNIT	TEST STANDARD
Dielectric constant, 1kHz	0.5 - 4.5		ASTM D150
Volumic (transversal) resistivity, DC, 20°C (68°F)/50%RH	2.0E+12	ohm*m	ASTM D257
Relative permittivity, 100Hz	10		IEC 62631-2-1
Relative permittivity, 1MHz	7.5		IEC 62631-2-1
Dissipation factor, 100Hz	310	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	2160	E-4	IEC 62631-2-1
Dissipation factor	0.01 - 0.21		ASTM D150

PACKAGING

Available packaging:
- 1000 kg / 2205 lb rigid container
- 23 kg / 50 lb bag

SPECIAL CHARACTERISTICS

- Flame & smoke