KYNAR® MED

TECHNICAL DATA SHEET

KYNAR SUPERFLEX® 2500-20 MED

FLUORINATED COPOLYMER PELLET

KYNAR SUPERFLEX® MED is a fluorinated thermoplastic copolymer.
The SUPERFLEX® MED has outstanding chemical resistance, resistance to UV, high barrier properties, high purity, good mechanical properties and is resistant to gamma, steam and ETO sterilization.
Moreover, this grade is flexible and suitable in medical tubing and film applications.
KYNAR SUPERFLEX® 2500-20 MED is available in pellet form for extrusion, injection or compression. This product is tested for USP Class VI and ISO 10993 part 4 and part 5. Letters can be provided upon request.

TYPE

PVDF

MAIN APPLICATIONS

- health - reusable - components
- health - consumable - others
- health - consumable - catheters
- plenum conduit
- plenum cable

DELIVERY FORM

- Pellets

TRANSFORMATION PROCESSES

- Injection Molding

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt viscosity, 230°C (446°F) at 100 s-1	9 - 16	kPo	ASTM D3835
Melt flow index (MFR), 230°C / 5 kg (446°F / 11 lb)	1 - 15	g/10min	ASTM D1238
Melt volume flow rate (MVR), 230°C / 5 kg (446°F / 11 lb)	5.8	cm^3/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Yield stress, 23°C (73°F)	11.7 - 19.3	MPa	ASTM D638
Yield strain, 23°C (73°F)	18	%	ISO 527-1/-2
Stress at break, 23°C (73°F)	13.8 - 31	MPa	ASTM D638
Nominal strain at break, 23°C (73°F)	>50	%	ISO 527-1/-2
Compression strength, 23°C (73°F)	13.8 - 20.7	MPa	ASTM D695
Izod impact unnotched strength, 23°C (73°F)	No Break		ASTM D256
Izod impact notched strength, 23°C (73°F)	No Break		ASTM D256
Charpy notched impact strength, 23°C (73°F)	No Break		ISO 179 1eA
Hardness, shore D	50 - 57		ASTM D2240
Flexural modulus, 23°C (73°F)	193 - 276	MPa	ASTM D790
Tensile modulus, 23°C (73°F)	350	MPa	ASTM D638
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.54		ASTM D1895
Coefficient of friction static vs steel, 23°C (73°F)	0.49		ASTM D1894

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PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Abrasion resistance, wheel CS 17, load 1 kg, 1000 cycles	28 - 33	mg	ASTM G195-13A

THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Glass transition temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Limiting oxygen index (LOI)	42	%	ASTM D2863
Yellow card available	yes		
Coefficient of linear thermal expansion, 23°C (73°F)	153 - 194	10E-6 / °K	ASTM D696
Specific heat temperature, 23°C (73°F)	745 - 958		ISO 11357-1/-2
Heat deflection temperature, 1.8 MPa	31	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa, 138°C/h	26.7 - 37.8	°C	ASTM D648
Thermal conductivity	0.144 - 0.18	W/m-K	ASTM D433
Melting temperature, 10°C/min	122	°C	ISO 11357-1/-3

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Dielectric constant, 1kHz	4.5 - 13.5		ASTM D150
Surface resistivity, 23°C (73,4°F)	8.5E+11 - 9.2E+11	ohm/sq	ASTM D257
Volumic (transversal) resistivity, DC, 20°C (68°F)/50%RH	2.0E+12	ohm*m	ASTM D257
Dissipation factor	0.05 - 0.29		ASTM D150

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.8 - 1.82	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	0.05	%	ISO 62

SPECIAL CHARACTERISTICS

- Flame & smoke

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