KYNAR FLEX®

TECHNICAL DATA SHEET

KYNAR FLEX® 2950-05

FLUORINATED COPOLYMER PELLET

Kynar Flex® resins are fluorinated thermoplastic copolymers.
Kynar Flex® 2950-05 resin is a pelletized, semi-crystalline VF2 based copolymer. It has been designed for wire and cable applications requiring high flexibility and improved resistance to impact.The low molecular weight allows extrusion conditions that reduce jacket shrink back over fiber optic constructions.
Additional characteristics:
- Excellent thermal stability
- Excellent abrasion resistance
- Excellent chemical resistance
- Impervious to UV degradation
- High Limiting Oxygen Index
- Extremely low smoke emission characteristics

Meets UL910 requirements

TYPE

PVDF

MAIN APPLICATIONS

- plenum conduit
- plenum cable

DELIVERY FORM

- Pellets

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt viscosity, 230°C (446°F) at 100 s-1	6 - 12	kPo	ASTM D3835
Melt flow index (MFR), 230°C / 5 kg (446°F / 11 lb)	8 - 25	g/10min	ASTM D1238
Melt volume flow rate (MVR), 230°C / 5 kg (446°F / 11 lb)	8	cm^3/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Yield stress, 23°C (73°F)	13.8 - 21.4	MPa	ASTM D638
Yield strain, 23°C (73°F)	18	%	ISO 527-1/-2
Stress at break, 23°C (73°F)	20 - 27.6	MPa	ASTM D638
Nominal strain at break, 23°C (73°F)	>50	%	ISO 527-1/-2
Compression strength, 23°C (73°F)	24.1 - 31	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	57 - 62		ASTM D2240
Flexural modulus, 23°C (73°F)	276 - 414	MPa	ASTM D790
Tensile modulus, 23°C (73°F)	387	MPa	ASTM D638
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.54		ASTM D1895

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PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Coefficient of friction static vs steel, 23°C (73°F)	0.55		ASTM D1894
Abrasion resistance, wheel CS 17, load 1 kg, 1000 cycles	21 - 25	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)	95	%	ASTM D2863
Yellow card available	yes		
Coefficient of linear thermal expansion, 23°C (73°F)	162 - 216	10E-6 / °K	ASTM D696
Specific heat temperature, 23°C (73°F)	745 - 958		ISO 11357-1/-2
Heat deflection temperature, 0.45 MPa	57	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	43	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa, 138°C/h	35 - 51.7	°C	ASTM D648
Heat deflection temperature, 0.45 MPa, 138°C/h	48.9-65.6	°C	ASTM D648
Thermal conductivity	0.144 - 0.18	W/m-K	ASTM D433
Melting temperature, 10°C/min	134	°C	ISO 11357-1/-3
Burning behavior, nominal thickness 1.5 mm	V-0		IEC 60695-11-10

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Dielectric constant, 1kHz	3.8 - 12.1		ASTM D150
Relative permittivity, 100Hz	7.05		IEC 62631-2-1
Dissipation factor, 100Hz	0.12	E-4	IEC 62631-2-1
Dissipation factor	0.02 - 0.24		ASTM D150

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.78 - 1.8	g/cm³	ISO 1183-1
Water absorption, at equilibrium at 23°C (73°F) / Immersion	0.03	%	ISO 62

PACKAGING

Available packaging:
- 25 kg / 55 lb rigid container
- 680 kg / 1500 lb big bag
- 680 kg /1500 lb rigid container

SPECIAL CHARACTERISTICS

- Flame & smoke

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