KYNAR FLEX®

TECHNICAL DATA SHEET

KYNAR FLEX® 2900-04

FLUORINATED COPOLYMER PELLET

KYNAR FLEX® resins are fluorinated thermoplastic copolymers.
KYNAR FLEX® 2900-04 resin is a pelletized, semi-crystalline VF based copolymer. It can be used in extrusion applications such as flexible wire jacketing, or injection molding applications where higher Limiting Oxygen Index is needed for flame and smoke applications.

Additional characteristics:
- Excellent thermal stability
- Excellent abrasion resistance
- Extremely flexible and tough

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)	4 - 21	g/10min	ASTM D1238
Melt volume flow rate (MVR), 230°C / 5 kg (446°F / 11 lb)	9	cm^3/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Yield stress, 23°C (73°F)	20 - 34.5	MPa	ASTM D638
Yield strain, 23°C (73°F)	14.5	%	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
Flexural modulus, 23°C (73°F)	483 - 758	MPa	ASTM D790
Compression strength, 23°C (73°F)	31 - 41.4	MPa	ASTM D695
Izod impact unnotched strength, 23°C (73°F)	No Break		ASTM D256
Izod impact notched strength, 23°C (73°F)	0.534 - 1.07	J/m	ASTM D256
Hardness, shore D	60 - 70		ASTM D2240
Tensile modulus, 23°C (73°F)	700	MPa	ASTM D638
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.33		ASTM D1895
Coefficient of friction static vs steel, 23°C (73°F)	0.33		ASTM D1894
Abrasion resistance, wheel CS 17, load 1 kg, 1000 cycles	16 - 19	mg	ASTM G195-13A

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THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Glass transition temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Limiting oxygen index (LOI)	75	%	ASTM D2863
Yellow card available	yes		
Coefficient of linear thermal expansion, 23°C (73°F)	126 - 185	10E-6 / °K	ASTM D696
Specific heat temperature, 23°C (73°F)	745 - 958		ISO 11357-1/-2
Heat deflection temperature, 1.8 MPa, 138°C/h	40 - 55	°C	ASTM D648
Heat deflection temperature, 0.45 MPa, 138°C/h	60-75	°C	ASTM D648
Thermal conductivity	0.144 - 0.18	W/m-K	ASTM D433
Melting temperature, 10°C/min	143	°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	3.5 - 10.6		ASTM D150
Dielectric strength, 23°C (73,4°F)	1.3 - 1.5	kV/mm	ASTM D149
Dissipation factor	0.02 - 0.21		ASTM D150

OTHER PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Density, 23°C (73°F)	1.77 - 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

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

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