KYNAR FLEX®

TECHNICAL DATA SHEET

KYNAR FLEX® 2750-01

FLUORINATED COPOLYMER PELLET

KYNAR FLEX® resins are fluorinated thermoplastic copolymers.
Outstanding characteristics: chemical resistance, resistance to UV, barrier properties and high purity.
KYNAR FLEX® 2750-01 resin is a grade of pellets to be used where maximum flexibility or impact strength is required. This product is NSF/ANSI/CAN 61 certified.

TYPE

PVDF

MAIN APPLICATIONS

- tubing
- plenum pipe

DELIVERY FORM

- Pellets

RHEOLOGICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Melt viscosity, 230°C (446°F) at 100 s-1	20 - 25	kPo	ASTM D3835
Melt flow index (MFR), 230°C / 5 kg (446°F / 11 lb)	4 - 14	g/10min	ASTM D1238
Melt volume flow rate (MVR), 230°C / 5 kg (446°F / 11 lb)	1.9	cm^3/10min	ISO 1133

MECHANICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Flexural modulus, 23°C (73°F)	276 - 414	MPa	ASTM D790
Yield stress, 23°C (73°F)	13.8 - 21.4	MPa	ASTM D638
Yield strain, 23°C (73°F)	15	%	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 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
Tensile modulus, 23°C (73°F)	448	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)	0.55		ASTM D1894
Abrasion resistance, wheel CS 17, load 1 kg, 1000 cycles	21 - 25	mg	ASTM G195-13A

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THERMAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Heat deflection temperature, 0.45 MPa	57	°C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa	43	°C	ISO 75-1/-2
Glass transition temperature, 10°C/min	-40	°C	ISO 11357-1/-2
Vicat softening temperature, 50N at 50°C/h	61	°C	ISO 306
Limiting oxygen index (LOI)	43	%	ASTM D2863
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, 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

ELECTRICAL PROPERTIES

PROPERTIES	TYPICAL VALUE	UNIT	TEST STANDARD
Dielectric constant, 1kHz	3.8 - 12.1		ASTM D150
Surface resistivity, 23°C (73,4°F)	4.8E11 - 5.1E11	ohm/sq	ASTM D257
Dielectric strength, 23°C (73,4°F)	1.1 - 1.3	kV/mm	ASTM D149
Relative permittivity, 100Hz	11.5		IEC 62631-2-1
Relative permittivity, 1MHz	7		IEC 62631-2-1
Dissipation factor, 100Hz	240	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 rigid container

PROCESSING CONDITIONS:

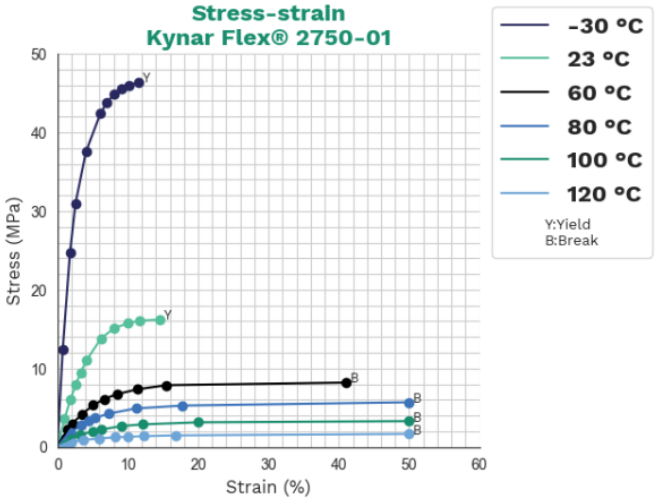
- Typical melt temperature (Min / Recommended / Max) - Injection Molding: 180°C / 210°C / 240°C (355°F / 410°F / 465°F)
- Typical mold temperature - Injection molding: 20-80°C (70-175°F)

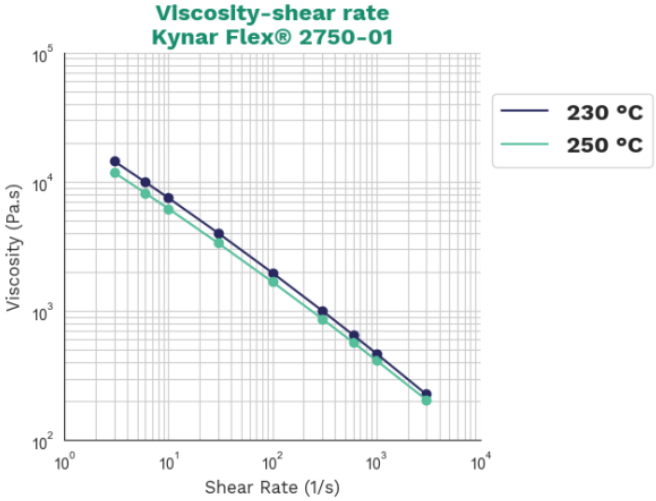
SPECIAL CHARACTERISTICS

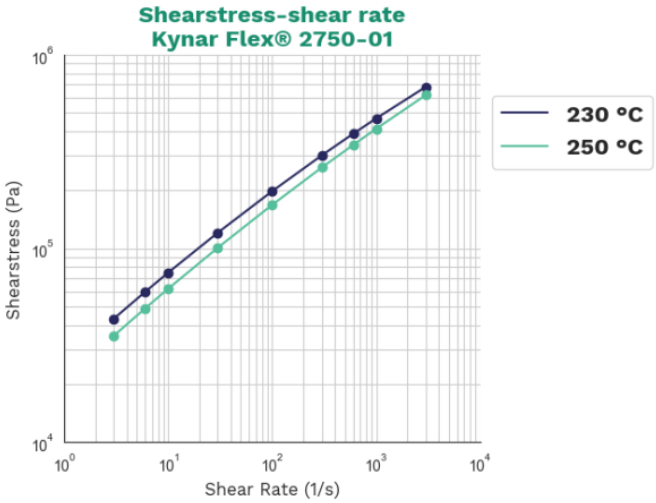
- Flame & smoke

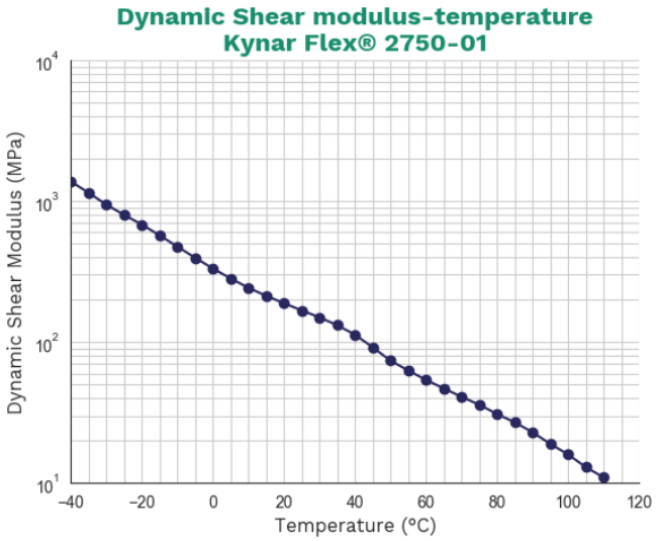
DIAGRAMS

KYNAR FLEX® 2750-01









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