

## TECHNICAL DATA SHEET

# KYNAR FLEX® 2850-04

## FLUORINATED COPOLYMER PELLET

KYNAR FLEX® resins are fluorinated thermoplastic copolymers.

Outstanding characteristics: chemical resistance, imperviousness to UV, high barrier properties, high purity, good mechanical and thermomechanical properties. This product is NSF/ANSI/CAN 61 certified.

KYNAR FLEX® 2850-04 resin is a standard grade of granules less flexible than the grade KYNAR FLEX® 2800-20 resin with a higher melting point.

It has a UL RTI temperature rating of 140 degrees C.

### DESIGNATION

PVDF

### MAIN APPLICATIONS

- Molding

### DELIVERY FORM

- Pellets

## RHEOLOGICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Melt viscosity, 230°C (445°F) at 100 s-1	4 - 8 kPo	ASTM D3835
Melt flow index (MFR), 235°C / 5 kg (455°F / 11 lb)	4 - 25 g/10min	ASTM D1238
Melt volume flow rate (MVR)	15 cm <sup>3</sup> /10min	ISO 1133

## MECHANICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Yield stress, 23°C (73°F)	31 - 41.4 MPa	ASTM D638
Yield strain, 23°C (73°F), 50 mm/min	10 %	ISO 527-1/-2
Stress at break, 23°C (73°F)	27.6 - 48.3 MPa	ASTM D638
Nominal strain at break, 23°C (73°F), 50 mm/min	>50 %	ISO 527-1/-2
Compression strength, 23°C (73°F)	41.4 - 58.6 MPa	ASTM D695
Izod impact unnotched strength, 23°C (73°F)	No Break	ASTM D256
Izod impact notched strength, 23°C (73°F)	0.107 - 0.427 J/m	ASTM D256
Charpy notched impact strength, 23°C (73°F)	8 kJ/m <sup>2</sup>	ISO 179 1eA
Hardness, Shore D	70 - 75	ASTM D2240
Flexural modulus, 23°C (73°F)	1030 - 1240 MPa	ASTM D790
Tensile modulus, 23°C (73°F)	1300 MPa	ASTM D638
Coefficient of friction dynamic vs steel, 23°C (73°F)	0.19	ASTM D1895
Coefficient of friction static vs steel, 23°C (73°F)	0.26	ASTM D1894
Abrasion resistance, Wheel CS 17, load 1 kg, 1000 cycles	6 - 9 mg	ASTM G195-13A

# KYNAR FLEX® 2850-04

## THERMAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Glass transition temperature, 10°C/min	-40 °C	ISO 11357-1/-2
Limiting oxygen index (LOI)	43 %	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	46 °C	ISO 75-1/-2
Heat deflection temperature, 1.8 MPa, 138°C/h	37.8 - 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	157 °C	ISO 11357-1/-3

## ELECTRICAL PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Dielectric constant, 1kHz	3.5 - 10.2	ASTM D150
Dielectric strength, 23°C (73,4°F)	1.3 - 1.6 kV/mm	ASTM D149
Volumic (transversal) resistivity, DC, 20°C (68°F)/50%RH	2.0E+12 ohm*m	ASTM D257
Relative thermal index	140	
Dissipation factor	0.01 - 0.22	ASTM D150

## OTHER PROPERTIES

PROPERTIES	VALUE	TEST STANDARD
Specific gravity, 23°C (73°F)	1.77 - 1.8 g/cm <sup>3</sup>	
Water absorption, Saturated in water at 23°C (73°F)	0.04 %	ASTM D570

## SPECIAL CHARACTERISTICS

- Flame & smoke

**Headquarter: Arkema France**  
420, rue d'Estienne d'Orves  
92705 Colombes Cedex – France  
T +33 (0)1 49 00 80 80