

## TECHNICAL DATA SHEET

### KYNAR FLEX® 2850-02

#### FLUORINATED COPOLYMER PELLET

KYNAR FLEX® resins are fluorinated thermoplastic copolymers.

KYNAR FLEX® 2850-02 has been specifically designed for use in wire and cable constructions which require an Underwriters Laboratories temperature of 150°C and a Limiting Oxygen Index (LOI) of at least 75.

KYNAR FLEX® 2850-02 is easily processed and has excellent physical, mechanical, thermal and flame resistant characteristics. KYNAR FLEX® 2850-02 meets the smoke and flame requirements of UL 910 and ASTM E84 (the Modified Steiner Tunnel Test). This copolymer is commonly used for pipe, wire jacketing, conduits, and in injection molded parts.

#### ADDITIONAL CHARACTERISTICS:

- Excellent thermal stability
- Excellent abrasion resistance
- Impervious to UV degradation
- Self extinguishing material
- Extremely low smoke emission characteristics
- 0/0 rating in ASTM E-84/UL 723

#### DESIGNATION

PVDF

#### DELIVERY FORM

- Pellets

#### RHEOLOGICAL PROPERTIES

속성	값	테스트 표준
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)	17 - 20 g/10min	ASTM D1238
Melt volume flow rate (MVR)	15 cm³/10min	ISO 1133

#### MECHANICAL PROPERTIES

속성	값	테스트 표준
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/m2	ISO 179 1eA
Hardness, Shore D	70 - 75	ASTM D2240
Flexural modulus, 23°C (73°F)	1030 - 1240 MPa	ASTM D790

# KYNAR FLEX® 2850-02

속성	값	테스트 표준
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
속성	값	테스트 표준
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

## THERMAL PROPERTIES ELECTRICAL PROPERTIES

속성	값	테스트 표준
Dielectric constant, 1kHz	3.5 - 10.2	ASTM D150
Dielectric strength, 23°C (73°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

속성	값	테스트 표준
Specific gravity, 23°C (73°F)	1.77 - 1.8 g/cm³	
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