

## 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

#### DESIGNATION

PVDF

#### DELIVERY FORM

- Pellets

#### RHEOLOGICAL PROPERTIES

| 속성  | 값              | 테스트 표준     |
|---|----------------|------------|
| Melt viscosity, 230°C (445°F) at 100 s-1            | 6 - 12 kPo     | ASTM D3835 |
| Melt flow index (MFR), 235°C / 5 kg (455°F / 11 lb) | 8 - 25 g/10min | ASTM D1238 |
| Melt volume flow rate (MVR)                         | 11.5 cm³/10min | ISO 1133   |

#### MECHANICAL PROPERTIES

| 속성  | 값               | 테스트 표준       |
|---|-----------------|--------------|
| Yield stress, 23°C (73°F)                       | 13.8 - 21.4 MPa | ASTM D638    |
| Yield strain, 23°C (73°F), 50 mm/min            | 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 mm/min | >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    |

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| 속성   | 값                    | 테스트 표준         |
|--|----------------------|----------------|
| 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  |
| 속성   | 값                    | 테스트 표준         |
| 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 |

## THERMAL PROPERTIES ELECTRICAL PROPERTIES

| 속성                           | 값           | 테스트 표준    |
|------------------------------|-------------|-----------|
| Dielectric constant, 1kHz    | 3.8 - 12.1  | ASTM D150 |
| Relative permittivity, 100Hz | 7.05        | IEC 60250 |
| Dissipation factor, 100Hz    | 0.12 E-4    | IEC 60250 |
| Dissipation factor           | 0.02 - 0.24 | ASTM D150 |

## OTHER PROPERTIES

| 속성  | 값                | 테스트 표준 |
|---|------------------|--------|
| Specific gravity, 23°C (73°F)                       | 1.78 - 1.8 g/cm³ |        |
| Water absorption, Saturated in water at 23°C (73°F) | 0.03 %           | ISO 62 |

## SPECIAL CHARACTERISTICS

- Flame & smoke

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