

TECHNICAL DATA SHEET

KYNAR FLEX® 2801-00 POWDER

FLUORINATED COPOLYMER POWDER

KYNAR FLEX® resins are fluorinated thermoplastic copolymers.

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

KYNAR FLEX® 2801 resin is the powder form of the KYNAR FLEX® 2800-00 resin. To be used as an additive in LLDPE to improve the extrusion rate.

DESIGNATION

PVDF

MAIN APPLICATIONS

- Polymer Processing Aid

DELIVERY FORM

- Powder

RHEOLOGICAL PROPERTIES

| PROPERTIES | VALUE | TEST STANDARD |
|-----------------------------------------------------------|----------------------------|---------------|
| Melt viscosity, 230°C (445°F) at 100 s ⁻¹ | 23 - 27 kPo | ASTM D3835 |
| Melt flow index (MFR), 235°C / 5 kg (455°F / 11 lb) | 3 - 8 g/10min | ASTM D1238 |
| Melt volume flow rate (MVR), 230°C / 5 kg (446°F / 11 lb) | 0.5 cm ³ /10min | ISO 1133 |

MECHANICAL PROPERTIES

| PROPERTIES | VALUE | TEST STANDARD |
|----------------------------------------------------------|------------------|---------------|
| Yield stress, 23°C (73°F) | 20 - 34.5 MPa | ASTM D638 |
| Yield strain, 23°C (73°F), 50 mm/min | 15 % | ISO 527-1/-2 |
| Stress at break, 23°C (73°F) | 17.2 - 34.5 MPa | ASTM D638 |
| Nominal strain at break, 23°C (73°F), 50 mm/min | >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 | VALUE | TEST STANDARD |
|------------------------------------------------------|----------------------|----------------|
| Glass transition temperature, 10°C/min | -40 °C | ISO 11357-1/-2 |
| Vicat softening temperature, 50N at 50°C/h | 79 °C | ISO 306 |
| Limiting oxygen index (LOI) | 42 % | 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 | 48 °C | ISO 75-1/-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 |

ELECTRICAL PROPERTIES

| PROPERTIES | VALUE | 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 |
| Relative permittivity, 1MHz | 7 | IEC 60250 |
| Relative thermal index | 130 | |
| Dissipation factor, 1MHz | 2330 E-4 | IEC 60250 |
| Dissipation factor | 0.02 - 0.21 | ASTM D150 |

OTHER PROPERTIES

| PROPERTIES | VALUE | TEST STANDARD |
|-----------------------------------------------------|------------------------------|---------------|
| Specific gravity, 23°C (73°F) | 1.77 - 1.8 g/cm ³ | |
| Water absorption, Saturated in water at 23°C (73°F) | 0.03 % | ISO 62 |

SPECIAL CHARACTERISTICS

- Flame & smoke

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