

# KYNAR FLEX® 2850-07

**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.

**Kynar Flex® 2850-07 resin** is a moderate viscosity version of **Kynar Flex® 2850-00 resin** in for ease of extrusion and co-extrusion.

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

[UL Yellow Card](#)

## MAIN CHARACTERISTICS

| PROPERTIES                                        | VALUE        | UNIT           | TEST STANDARD  |
|---------------------------------------------------|--------------|----------------|----------------|
| <b>RHEOLOGICAL PROPERTIES</b>                     |              |                |                |
| Melt Flow Rate                                    | 9 - 16       | g/10min        | ASTM D1238     |
| Temperature                                       | 230          | °C             | -              |
| Load                                              | 12.5         | kg             | -              |
| Melt Viscosity, 230°C, 100 s-1                    | 16 - 20      | kPoise         | ASTM D3835     |
| <b>MECHANICAL PROPERTIES</b>                      |              |                |                |
| Tensile Modulus                                   | 1300         | MPa            | ISO 527-1/-2   |
| Tensile Modulus, 73 °F                            | 1030 - 1520  | MPa            | ASTM D638      |
| Yield stress                                      | 40           | MPa            | ISO 527-1/-2   |
| Tensile Strength at Yield, 73 °F                  | 31 - 41.4    | MPa            | ASTM D638      |
| Yield strain                                      | 11           | %              | ISO 527-1/-2   |
| Elongation at Yield, 73 °F                        | 5 - 15       | %              | ASTM D638      |
| Nominal Strain at Break                           | >50          | %              | ISO 527-1/-2   |
| Tensile Strength at Break, 73 °F                  | 27.6 - 48.3  | MPa            | ASTM D638      |
| Elongation at Break, 73 °F                        | 30 - 200     | %              | ASTM D638      |
| Taber Abrasion, CS 17 1000g:pad                   | 6 - 9        | mg/1000 cycles | ASTM-G195-13A  |
| Hardness, Shore D, 73 °F                          | 70 - 75      | -              | ASTM D2240     |
| Flexural Modulus, 73 °F                           | 1030 - 1240  | MPa            | ASTM D790      |
| Flexural Stength @ 5% Strain, 73 °F               | 20.7 - 34.5  | MPa            | ASTM D790      |
| Compressive Strength, 73 °F                       | 41.4 - 58.6  | MPa            | ASTM D695      |
| Charpy Notched Impact Strength, +23°C             | No Break     | kJ/m²          | ISO 179/1eA    |
| Unnotched Impact Strength, 73 °F                  | No Break     | kJ/m           | ASTM D256      |
| Notched Impact Strength, 73 °F                    | 0.16 - 0.427 | kJ/m           | ASTM D256      |
| Coefficient of Friction, Static vs. Steel, 73 °F  | 0.26         | -              | ASTM D1894     |
| Coefficient of Friction, Dynamic vs. Steel, 73 °F | 0.19         | -              | ASTM D1894     |
| <b>THERMAL PROPERTIES</b>                         |              |                |                |
| Melting Temperature, 10°C/min                     | 157          | °C             | ISO 11357-1/-3 |
| Melting Point, 73 °F                              | 155 - 160    | °C             | ASTM D3418     |

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**KYNAR FLEX®**  
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|                                                 |               |                   |                 |
|-------------------------------------------------|---------------|-------------------|-----------------|
| Glass Transition Temperature (T <sub>g</sub> )  | -40.6 - -38.3 | °C                | ASTM D7028      |
| Temperature Rating                              | 140           | °C                | UL RTI          |
| Heat Deflection Temperature, 264 Psi, 248 °F/hr | 37.8 - 55     | °C                | ASTM D648       |
| Heat Deflection Temperature, 66 Psi, 248 °F/hr  | 60 - 75       | °C                | ASTM D648       |
| Coefficient of Thermal Expansion, 73 °F         | 12.6 - 18.5   | 10E-5/°C          | ASTM D696       |
| Burning Behav. at 1.5 mm Nominal Thickness      | V-0           | class             | IEC 60695-11-10 |
| Thickness Tested                                | 1.5           | mm                | -               |
| Yellow Card available                           | yes           | -                 | -               |
| Burning Behav. at Thickness h                   | V-0           | class             | IEC 60695-11-10 |
| Thickness Tested                                | 0.8           | mm                | -               |
| Limiting Oxygen Index, 73 °F                    | 43            | %                 | ASTM D2863      |
| Thermal Conductivity                            | 0.144 - 0.18  | W/(m K)           | ASTM D433       |
| Specific Heat                                   | 745 - 958     | J/(kg K)          | DSC             |
| Thermal Decomposition TGA, in air               | 375           | °C                | 1% wt. loss     |
| Thermal Decomposition TGA, in nitrogen          | 410           | °C                | 1% wt. loss     |
| Relative Thermal Index, Mechanical              | 140           | °C                | UL 746B         |
| Relative Thermal Index, Electrical              | 140           | °C                | UL 746B         |
| <b>ELECTRICAL PROPERTIES</b>                    |               |                   |                 |
| Relative Permittivity, 100Hz                    | 6.85          | -                 | IEC 60250       |
| Dielectric Constant, 1 kHz                      | 3.5 - 10.2    | -                 | ASTM D150       |
| Dissipation Factor, 100Hz                       | 0.12          | E-4               | IEC 60250       |
| Dissipation Factor, 100 kHz                     | 0.01 - 0.22   | -                 | ASTM D150       |
| Volume Resistivity                              | 2E12          | Ohm*m             | IEC 60093       |
| Volume Resistivity, DC 68 °F, 65% R.H.          | 2E14          | Ohm*cm            | ASTM D257       |
| Dielectric (Electric) Strength                  | 1.4           | kV/mm             | IEC 60243-1     |
| Dielectric (Electric) Strength, 73°F            | 1.3 - 1.6     | kV/mil            | ASTM D149       |
| <b>OTHER PROPERTIES</b>                         |               |                   |                 |
| Water Absorption                                | 0.03          | %                 | Sim. to ISO 62  |
| Density                                         | 1.770         | kg/m <sup>3</sup> | ISO 1183        |
| Specific Gravity, 73 °F                         | 1.77 - 1.8    | -                 | ASTM D792       |
| <b>OPTICAL PROPERTIES</b>                       |               |                   |                 |
| Refractive Index @ sodium D line                | 1.42          | -                 | ASTM D542       |

## MAIN APPLICATIONS:

- injection molded applications requiring the high chemical and temperature resistance properties of Kynar 2850-00 resin

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## REGIONAL AVAILABILITY

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

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