Technical Data Sheet

# *Pro-fax* PF511

Polypropylene, Homopolymer

## Product Description

*Pro-fax* PF511 radiation resistant, high melt flow, controlled rheology polypropylene homopolymer is available in pellet form. This resin is typically used in injection molding applications and offers enhanced retention of physical properties and color after radiation sterilization.

This resin resists yellowing and embrittlement after gamma radiation. However, since performance and appearance after radiation sterilization can be sensitive to design and processing choices, the users should verify performance in their application.

Our customers typically use this resin in applications such as medical devices, syringes, and labware.

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|---|---|
| **Application** | Labware; Medical Devices |
| **Market** | Healthcare |
| **Processing Method** | Injection Molding |
| **Attribute** | Good Processability; Radiation Resistant |

| Typical Properties | Nominal Value | English Units | Nominal Value | SI Units | Test Method |
|---|---|---|---|---|---|
| **Physical** | | | | | |
| Melt Flow Rate, (230 °C/2.16 kg) | 20 | g/10 min | 20 | g/10 min | ASTM D1238 |
| Density, (23 °C) | 0.90 | g/cm³ | 0.90 | g/cm³ | ASTM D792 |
| **Mechanical** | | | | | |
| Flexural Modulus | | | | | |
| (0.05 in/min, 1% Secant, Procedure A) | 135000 | psi | | | ASTM D790 |
| (1.3 mm/min, 1% Secant, Procedure A) | | | 930 | MPa | ASTM D790 |
| Tensile Strength at Yield | | | | | |
| (2 in/min) | 4000 | psi | | | ASTM D638 |
| (50 mm/min) | | | 28 | MPa | ASTM D638 |
| Tensile Elongation at Yield | 15 | % | 15 | % | ASTM D638 |
| **Impact** | | | | | |
| Notched Izod Impact Strength | | | | | |
| (73 °F, Method A) | 0.6 | ft-lb/in | | | ASTM D256 |
| (23 °C, Method A) | | | 32 | J/m | ASTM D256 |
| **Thermal** | | | | | |
| Deflection Temperature Under Load | | | | | |
| (66 psi, Unannealed) | 190 | °F | | | ASTM D648 |
| (0.45 MPa, Unannealed) | | | 88 | °C | ASTM D648 |