

## Technical Data Sheet

### *Pro-fax* PF531



Polypropylene, Homopolymer

#### Product Description

*Pro-fax* PF531 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.

*Pro-fax* PF531 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 radiation-sterilizable medical and laboratory devices.

<b>Application</b>	Labware; Medical Devices
<b>Market</b>	Healthcare
<b>Processing Method</b>	Injection Molding
<b>Attribute</b>	Good Processability; Radiation Resistant

Typical Properties	Nominal Value	English Units	Nominal Value	SI Units	Test Method
<b>Physical</b>					
Melt Flow Rate, (230 °C/2.16 kg)	27	g/10 min	27	g/10 min	ASTM D1238
Density, (23 °C)	0.90	g/cm <sup>3</sup>	0.90	g/cm <sup>3</sup>	ASTM D792
<b>Mechanical</b>					
Flexural Modulus					
(0.05 in/min, 1% Secant, Procedure A)	140000	psi			ASTM D790
(1.3 mm/min, 1% Secant, Procedure A)			965	MPa	ASTM D790
Tensile Strength at Yield					
(2 in/min)	4100	psi			ASTM D638
(50 mm/min)			28	MPa	ASTM D638
Tensile Elongation at Yield	15	%	15	%	ASTM D638
<b>Impact</b>					
Notched Izod Impact Strength					
(73 °F, Method A)	0.6	ft-lb/in			ASTM D256
(23 °C, Method A)			32	J/m	ASTM D256
<b>Thermal</b>					
Deflection Temperature Under Load					
(66 psi, Unannealed)	185	°F			ASTM D648
(0.45 MPa, Unannealed)			85	°C	ASTM D648