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.

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