Tefzel® 207

Ethylene Tetrafluoroethylene Copolymer

DuPont Fluoropolymers

Message:

DuPont™ Tefzel 207 fluoropolymer is a special-purpose resin available in translucent, 2.5 mm (0.1 in) pellets. Compared with other grades of Tefzel ®, it has a higher flow rate but still maintains a service temperature of 150°C (302°F).

Tefzel ® 207 and the other Tefzel ® fluoropolymers are melt processible, modified copolymers of ethylene and tetrafluoroethylene. They are high-performance resins that can be processed at relatively high rates compared with fluorocarbon resins. They are mechanically tough and offer an excellent balance of properties.

The relatively high flow rate of Tefzel ® 207 makes it uniquely suitable for high-speed processing, especially for extruded coatings and injection molding of slender, thin-walled or intricate shapes. Properly processed products made from neat Tefzel ® 207 are inert to most solvents and chemicals, hydrolytically stable, and weather resistant. Recommended upper service temperature is 150°C (302°F); useful properties are retained at cryogenic ranges. The level and stability of dielectric properties are excellent and the flame rating is V-0 by the UL94 method. Mechanical properties include outstanding impact strength, cut-through, and abrasion resistance.

Statements, or data, regarding behavior in a flame situation are not intended to reflect hazards presented by this or any other material when under actual fire conditions.

Typical End Products

Tefzel ® 207 is ideal for many end products, including electrical components such as sleeving, coil forms, sockets, connectors, and switches; lab ware such as tubing, valves, containers, and fasteners; battery or instrument components that require chemical inertness; and mechanical parts. The high melt flow rate of this product makes it ideal for injection molding and thin wall extrusion.

General Information	
Features	Copolymer
	Solvent resistance
	Impact resistance, high
	Good electrical performance
	Good wear resistance
	High liquidity
	Good chemical resistance
	Good weather resistance
	Good toughness
	Hydrolysis stability
Uses	Thin wall parts
	Electrical/Electronic Applications
	Valve/valve components
	Pipe fittings
	Fasteners
	Switch
	Connector
	Container
	Laboratory apparatus
Appearance	Translucent
Forms	Particle

Processing Method	Blow molding
	Extrusion
	Extrusion coating
	Resin transfer molding
	Compression molding
	Injection molding

Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.70	g/cm³	ASTM D792
Melt Mass-Flow Rate (MFR) (297°C/5.0 kg)	30	g/10 min	ASTM D3159
Water Absorption (24 hr)	7.0E-3	%	ASTM D570
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength (23°C)	40.0	MPa	ASTM D3159
Tensile Elongation (Break, 23°C)	300	%	ASTM D3159
Flexural Modulus (23°C)	1000	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (23°C)	No Break		ASTM D256
Thermal	**Nominal Value**	**Unit**	**Test Method**
Melting Temperature	250 - 280	°C	ASTM D3159
Maximum Service Temperature	150	°C	UL 746
Electrical	**Nominal Value**	**Unit**	**Test Method**
Volume Resistivity	1.0E+17	ohms·cm	ASTM D257
Dielectric Strength (0.250 mm)	67	kV/mm	ASTM D149
Dielectric Constant (23°C, 1 MHz)	2.60 - 2.80		ASTM D150
Dissipation Factor (23°C, 1 MHz)	9.0E-3		ASTM D150
Flammability	**Nominal Value**	**Unit**	**Test Method**
Oxygen Index	30 - 32	%	ASTM D2863
Additional Information			

Weather and Chemical Resistance: Excellent

Recommended distributors for this material

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