Tefzel® HT-2170

Ethylene Tetrafluoroethylene Copolymer

DuPont Fluoropolymers

Message:

DuPont[™] Tefzel[®] fluoropolymer HT-2170 resin combines the chemical and high-temperature resistance of Tefzel[®] with antistatic levels of electrical conductivity.

Tefzel® HT-2170 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 to other fluorocarbon resins. They are mechanically tough and offer an excellent balance of properties.

Tefzel ® HT-2170 can perform successfully in applications where other thermoplastics are lacking in mechanical toughness, broad thermal capability, ability to meet difficult environmental conditions, or limited by fabricating problems.

Properly processed products made from neat Tefzel® HT-2170 are inert to most solvents and chemicals, hydrolytically stable, and weather-resistant. The recommended upper service temperature is 150°C (302°F); useful properties are retained at cryogenic ranges. Mechanical properties include outstanding impact strength, cut-through, and abrasion resistance. The main advantage of Tefzel® HT-2170 is that it has improved stress crack resistance and flexibility when compared to other static-dissipating Tefzel® ETFE resins. To gain stress crack resistance, some physical strength has been sacrificed. Typical End Products

Tefzel ® HT-2170 resin can be used to manufacture extruded tubing, pipe, and other profiles for hose; linings of components used in the chemical processing industries; industrial film; injection and blow-molded articles requiring superior electrical, chemical, and thermal properties and stress crack resistance.

General Information	
Features	Conductivity
	High ESCR (Stress Cracking Resistance)
	Copolymer
	Solvent resistance
	Impact resistance, high
	Good flexibility
	Good wear resistance
	Good chemical resistance
	Good weather resistance
	Good toughness
	Hydrolysis stability
Uses	Films
	Lining
	Blow molding applications
	Pipe
	Piping system
	Pipe fittings
	Profile
Forms	Particle
Processing Method	Blow molding
	Pipeline extrusion molding
	Extrusion

Resin transfer molding

Profile extrusion 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)	2.3	g/10 min	ASTM D3159	
Mechanical	Nominal Value	Unit	Test Method	
Tensile Strength (23°C)	27.6	MPa	ASTM D638	
Tensile Elongation (Break, 23°C)	200	%	ASTM D638	
Thermal	Nominal Value	Unit	Test Method	
Melting Temperature	220 - 250	°C	ASTM D3418	
Maximum Service Temperature	150	°C	UL 746	
Electrical	Nominal Value	Unit	Test Method	
Volume Resistivity ¹	7.0	ohms·cm	ASTM D257	
Additional Information				
Weather and Chemical Desistance: Eventert				

Weather and Chemical Resistance: Excellent

NOTE

1.

Volume resistivity as measured on
compression molded plaques.
Resistivity is very sensitive to
processing technique. Injection
molded plaques are typically
higher.

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