

# Tefzel 200

## Ethylene Tetrafluoroethylene Copolymer

### DuPont Fluoropolymers



Prospector

#### Product Description

DuPont™ Tefzel ® fluoropolymer 200 is a generalpurpose resin available in translucent, 2.5-mm (0.1-in.) pellets. Compared to other grades of Tefzel ®, its most unique features are an intermediate flow rate and a balance of properties that make it suitable for a variety of processes and demanding end uses.

Tefzel ® 200 and the other Tefzel ® fluoropolymers are melt processible, modified copolymers of ethylene and tetrafluoroethylene. They are highperformance resins that can be processed at relatively high rates compared to fluorocarbon resins. They are mechanically tough and offer an excellent balance of properties.

Tefzel ® 200 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 virgin Tefzel ® 200 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. High energy radiation resistance meets IEEE 383 and the resin is approved for nuclear power plant use.

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.

#### General

Material Status	• Commercial: Active		
Availability	• Asia Pacific • Europe	• North America • South America	
Features	• Good Abrasion Resistance • Good Chemical Resistance • Good Impact Resistance	• Good Toughness • Good Weather Resistance • Hydrolytically Stable	• Medium Flow • Radiation (Gamma) Resistant • Solvent Resistant
Uses	• Connectors • Containers • Electrical/Electronic Applications	• Film • Labware • Nuclear Power Applications	• Tubing • Valves/Valve Parts
Agency Ratings	• IEEE 383		
Appearance	• Translucent		
Forms	• Pellets		
Processing Method	• Blow Molding • Compression Molding	• Extrusion • Injection Molding	• Resin Transfer 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)	7.0	g/10 min	ASTM D1238
Water Absorption (24 hr)	0.0070	%	ASTM D570
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (23°C)	44.8	MPa	ASTM D638
Tensile Elongation (Break, 23°C)	300	%	ASTM D638
Flexural Modulus (23°C)	1170	MPa	ASTM D790
Compressive Strength	37.9	MPa	ASTM D695
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	No Break		ASTM D256
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	67		ASTM D2240
Thermal	Nominal Value	Unit	Test Method
Melting Temperature	255 to 280	°C	
CLTE - Flow (0 to 100°C)	0.00013	cm/cm/°C	ASTM D696
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+17	ohm·cm	ASTM D257
Dielectric Strength (0.254 mm)	71	kV/mm	ASTM D149
Dielectric Constant (23°C, 1 MHz)	2.55		ASTM D150
Dissipation Factor (23°C, 1 MHz)	0.0031		ASTM D150
Arc Resistance	122	sec	ASTM D495
Flammability	Nominal Value	Unit	Test Method
Oxygen Index	31	%	ASTM D2863

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**Additional Information**

Limiting Oxygen Index, ASTM D2863: 30 to 32%  
Dielectric Constant, ASTM D1531, 1 MHz, 73°F: 2.5 to 2.6

**Notes**

<sup>1</sup> Typical properties: these are not to be construed as specifications.

**Revision History**

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