

TEFZEL®

ETFE – ETHYLENE TETRAFLUOROETHYLENE
(COMMONLY REFERRED TO AS TEFZEL®)



ETFE is a modified copolymer of ethylene and tetrafluoroethylene that is often used in applications that demand mechanical toughness with thermal, mechanical and chemical extremes.

Afton Plastics processes DuPont *Tefzel*® grades: 280, HT-2181, HT-2183 and HT-2004 (25% glass filled)

*Other grades may be available; please call with inquiries.

MATERIAL CLASSIFICATION:

ASTM D 3159 Type I, Grade 1

USP Class VI

May be used in contact with food up to +250 Deg. F

3A Sanitary Standard 20-17

PRODUCT BENEFITS:

Chemically inert to all industrial chemicals and solvents

Exceptional dielectric insulation properties

Negligible moisture absorption

Rugged, good abrasion resistance and impact strength

May be welded with hot air welding equipment

Temperature range: –150 Deg. F to +300 Deg. F

High resistance to outdoor weathering

Radiation and Heat sterilization resistant

TYPICAL APPLICATIONS:

Pump housings and pipe linings

Impellers for abrasive slurries

Fluid handling or chemical processing equipment

Wet bench equipment

Oxygen respirator components

Military/Defense equipment components

Food processing equipment

Radomes



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DUPONT *TEFZEL*® ETFE DATA SHEET¹



			GRADE
PROPERTY	ASTM METHOD	UNIT	HT-2183
MECHANICAL/PHYSICAL			
Melt Flow Rate	D-3159	g/10 min	2-16
Specific Gravity	D-792		1.69-1.76
Water Absorption, 24 hr.	D-570	%	0.007
Tensile Strength, 23°C	D-638	psi	5,500-6,100
Ultimate Elongation, 23°C	D-638	%	275-300
Impact Strength, 23°C, Notched Izod	D-256	J/m	no break
Flexural Modulus, 23°C	D-790	psi	145,000
Durometer Hardness, Shore D	D-2240	D	67
Coefficient of Friction	D-1894		0.23
THERMAL			
Melting Point	D-3418	°C	255-280
Linear Coefficient of Expansion (0°C to 100°C)	D-696	mm/mm/°C	13.3 X 10 ⁻⁵
Limiting Oxygen Index	D-2863	%	30-32
Upper Service Temperature		°C	155
Flammability	UL 94		V-0
ELECTRICAL			
Surface Resistivity	D-257	ohm-sq	10 ¹⁷
Volume Resistivity	D-257	ohm-cm	10 ¹⁷
Dielectric Strength (10 mil film)	D-149	Volts/mil	1,800
Dielectric Constant, 23°C, 1 MHz	D-150		2.5-2.6
Dissipation Factor, 23°C, 1 MHz	D-150		0.0072

¹ Information provided by DuPont *Tefzel*® is a registered trademark of DuPont

Note: The data provided in this table are typical for the resins tested and do not represent product specifications.



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