

WELDING HORTUM / UL E 338209

Data sheet

Key properties of PTFE tubing

- PTFE has the lowest coefficient of friction of all polymers.
- Useful in high temperature applications.
- Very good chemical resistance to all common solvents, acids and bases.
- Excellent dielectric insulation properties.
- The working temperature of PTFE is extremely broad, ranging from 260°C (500°F) to -270°C (-454°F).

General	Continuous service temperature	Maximum			
	Chemical resistance				
	Specific gravity	D 792			
Electrical	Dielectric constant	D 150 at 10 ³ Hz			
		D 150 at 10 ⁶ Hz			
	Dielectric dissipation factor	D 150 at 10 ³ Hz			
		D 150 at 10 ⁶ Hz			
	Dielectric strenght (short term) 10mils film	D 150 at 10 ³ Hz			
Volume resistivity	D 150 at 10 ⁶ Hz D 150 at 10 ³ Hz				
Enviromental	Water absorption	D 570	%	<0.01	
	Weather resistance	-	-	Excellent	
	Oxygene index	D 2863	%	>95	
	Flammability	UL 94	-	V-0	
Mechanical	Tensile strength	D 1708, D 638	psi	3 500	
	Elongation	D 1708, D 638	%	300	
	Compressive strength	D 695	psi	3 500	
	Impact strength	D 256 at +23°C	Ft-Lb/in	3.5	
	Flexural Modulus	D 790 at +23°C	psi	90 000	
	Tensile Modulus	D 638	psi	80 000	
	Hardness	D 2240	-	D-60	
Thermal	Melting point		°C	327	
			°F	620	
	Thermal conductivity	C-177	BTU / hr / ft 2 / °F in	1.7	
	Deflection temperature 66 psi 264 psi	D 648		°C	55 122
				°F	252 131
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Item	(Test Method)	(Specifications)
(Specific Gravity)	ASTM D792	2.16
(Rated Voltage)	UL-224	600V (S) 300V (T) 150V (L)
UL Rated Temperature	--	-80~200
Tensile Strength	ASTM D638	24.5
Elongation Ratio	ASTM D638	350
(Flexural Modulus)	ASTM D790	490
(Impact Strength)	ASTM D256+23 °C -54 °C J/m	-No Break- 107
(Hardness)	ASTM D2240	55
(Coefficient Of Dynamic Friction)	--	0.1
(Melting Point)	--	327
(Service Temperature 20000h With 50% Retention Of Ultimate Elongation)	--	260
(Inflammability)	UL-224	VW-1
(Dielectric Constant At 103 - 106 Hz)	ASTM D150	2.1
Dielectric Strength	UL-224	YES
(Dissipation Factor At 106Hz)	ASTM D150	0.0002
(Arc Resistance)	ASTM D495 (Stainless Steel Electrodes)	>300
(Volume Resistivity)	ASTM D257	>1018
(Weather Resistance)	"Weather-O-Meter" (2000h)	No cracking
(Solvent Resistance)	ASTM D543	Excellent
(Chemical Resistance)	ASTM D543	Excellent

Dimensions: pte tube produces metric, imperial and AWG sizes. Special dimensions can be made upon request. Random production length is standard but fix length and cut pieces can be supplied upon request.

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Standard tolerances

ID mm	Tolerance mm	Wall mm	Tolerance mm
0.10 - 1.00	+/-0.05	0.10 - 0.19	+/-0.03
1.01 - 2.00	+/-0.06	0.20 - 0.29	+/-0.05
2.01 - 4.00	+/-0.10	0.30 - 0.49	+/-0.07
4.01 - 8.00	+/-0.15	0.50 - 0.69	+/-0.10
8.01 - 12.50	+/-0.15	0.70 - 0.79	+/-0.12
12.51 - 25.00	+/-0.20	0.80 - 0.99	+/-0.15
1.00 - 1.24	+/-0.20		
1.25 - 1.50	+/-0.25		
1.51 - 3.00	+/-0.30		
>3.00	+/-0.50		

Bending Radius

Bending radius at 25 °C

