



# ECTFE TUBING

## Key properties / advantages of ECTFE tubing

- Excellent barrier properties.
- Gamma and e-beam sterilizable.
- High durability.
- ECTFE is virtually unaffected by oxygen, ozone and UV light.

	PROPERTY	SPECIFICATION	UNIT		
<b>General</b>	Continuous service temperature	Maximum	°C	150	
			°F	302	
	Chemical resistance		–	Good	
	Specific gravity	D 792	–	1.70	
<b>Electrical</b>	Dielectric constant	D 150 at 103 Hz	–		
		D 150 at 106 Hz	–		
	Dielectric dissipation factor	D 150 at 103 Hz	–		
		D 150 at 106 Hz	–		
	Dielectric strength (short term) 10 mils film	D 149	Volt/mil	2 000	
Volume resistivity	D 257	Ohm cm	>10 <sup>15</sup>		
<b>Enviromental</b>	Water absorption	D 570	%	< 0.01	
	Weather resistance	–	–	Excellent	
	Oxygene index	D 2863	%	60	
	Flammability	UL 94	–	V-0	
<b>Mechanical</b>	Tensile strength	D 1708, D 638	psi	7 000	
	Elongation	D 1708, D 638	%	200	
	Compressive strength	D 695	psi	7 000	
	Impact strength	D 256 at +23°C	Ft-Lb/in	No Break	
	Flexural Modulus	D 790 at +23°C	psi	240 000	
	Tensile Modulus	D 638	psi	240 000	
	Hardness	D 2240	–	D-75	
	<b>Thermal</b>	Melting point		° C	240
° F				464	
Thermal conductivity		C-177	BTU/hr/ft2/°F.in	1.6	
Deflection temperature 66 psi 264 psi		D 648	° C		104
					71
Deflection temperature 66 psi 264 psi		D 648	° F		220
					160

**Dimensions:** Optinova 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.

STANDARD TOLERANCES	
OD mm	Tol mm
> 1.99	+/- 0.07
2.00-3.99	+/- 0.08
4.00-7.99	+/- 0.10
8.00-9.99	+/- 0.12
10.00-11.99	+/- 0.15
12.00-15.99	+/- 0.20
16.00-17.99	+/- 0.25
18.00-19.99	+/- 0.30
20.00-23.99	+/- 0.35
24.00-29.99	+/- 0.40
etc.	

STANDARD TOLERANCES	
Wall mm	Tol mm
> 0.30	+/- 0.05
0.31-0.70	+/- 0.08
0.71-1.00	+/- 0.10
1.01-1.30	+/- 0.12
1.31-1.60	+/- 0.15
1.61-2.00	+/- 0.20
2.01-2.50	+/- 0.25
2.51-3.00	+/- 0.30
3.01-3.50	+/- 0.35
3.51-4.00	+/- 0.40
etc.	