LOW DENSITY (ePTFE) TAPE STANDARD (LD-S Series)



Low density PTFE tape – also known as "expanded PTFE" (ePTFE) is made from pure PTFE film that has been expanded (stretched) under specific and tightly controlled conditions to achieve low dielectric constant and high tensile strength.

In coaxial cable designs, the <u>low dielectric</u> <u>constant</u> and <u>dissipation factor</u> contribute to lower signal loss (insertion loss or attenuation). The low dielectric constant also contributes for higher velocity of propagation. In addition, the nature of the ePTFE allows for greater flexibility on the cable construction.

The <u>high mechanical properties</u> help cable manufacturers to improve efficiency in their

FEATURES

- Color: Natural
- Thickness starting at 0.0030" (0.076mm)
- Densities starting from 0.7 g/cm³
- 1,500yds (1,372m) minimum splice-free length
- Typical dielectric constant: 1.3 1.5
- Uniaxially expanded (stretched)
- Low Shrinkage option available

TYPICAL PROPERTIES

production process, by enabling faster wrapping speeds.

As a binder tape in cable bundles, its **low weight** and **excellent conformability** adds minimal mass and volume to the cable construction.

APPLICATIONS:

- Dielectric material in coaxial cables
- Binder tape in data cables
- Binder tape in complex cable assemblies
- Filter in radiation detection devices

- Custom slit to widths from 5/32" (4mm) up to 5" (127mm)
- RoHS, REACH and California Prop 65 compliant
- 3" (76mm) ID plastic or cardboard cores
- Flat/Pancake pads, traverse/level or step-pack wound

STANDARD LOW DENSITY (ePTFE) TAPES					
Density (SPG)	Tensile Strength ¹ (Machine Direction)	Elongation at Break	Dielectric Constant (1MHZ)	Disspation Factor (1MHz)	Shrinkage factor ²
0.7 - 0.8 g/cm ³	3,000 psi (20.7 Mpa)	50% (min)	1.3 - 1.5	< 0.003	30%

1 0.0030" thick

² 6h @ 260°F

Warning: Properties shown on this document are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations, consult Technetics PTFE & Polymer Solutions. While the utmost care has been used in compiling this document, we assume no responsibility for errors. This edition cancels all previous issues. Subject to change without notice.



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