



## Description

The PHD series is a flexible, polyolefin, thin wall tubing which offers the advantages of an integral adhesive lining. Provides excellent environmental protection for electronic components.

## Typical Properties

### Physical

Tensile Strength	: 2,100 PSI
Ultimate Elongation	: 450%
Longitudinal Change	: +1%, -5%
Secant Modulus (2%)	: 17,000 PSI
*Heat Aging (168 hrs @ 175°C)	: Elongation 175%
*Heat Shock (4 hrs @ 250°C)	: No dripping, cracking, or flowing
*Low Temp Flexibility (4 hrs @ -55°C)	: No cracking
**Flexibility	: 3
Shrinkage	: 2:1
Shrink Temp	: 121°C (250°F)
Operating Temp	: -55°C to 100°C (-67°F to 230°F)

### Electrical

Dielectric Strength	: 800V/Mil
Volume Resistivity	: 10 <sup>14</sup> Ω-cm

### Chemical

Corrosion Effect	: Non-Corrosive
Water Absorption	: 0.3%
Fungus Resistance	: Non-nutrient
Fluid Resistance	: Excellent
Applicable Specifications	: MIL-DTL-23053/4 Class 2

### Adhesive

Peel Strength, pli	
Polyethylene	: 30
PVC	: 10
Lead	: 15
Aluminium	: 40

Corrosive Effect (Copper Mirror) Non-corrosive

\*Outer wall only.

\*\* Flexibility: The materials are rated on a scale of typical product data and should not be used for specifications purposes. Unless otherwise noted, all tests are performed at room temperature.

# Heat Shrink Tubing



## Part Number Table

Description	Dimensions				Standard Packages (Colour: Black)					
	Size (Inch)	Expanded I.D. (Min.) (Inch)	Recovered I.D. (Max.) (Inch)	Recovered Nominal Wall Thickness (Inch)	4 Foot Lengths (+1, -0)			6 Inch Lengths (± 0.125)		
					Part Number	Qty	Total Footage (Feet)	Part Number	Qty	Total Footage (Feet)
PHD Series-Flame Retardant, Adhesive-Lined Tubing	1/8	0.125	0.063	0.27	PHD-008-4025-BLK	25	100	PHD-008-6028-BLK	28	14
	3/16	0.187	0.093		PHD-012-4025-BLK			PHD-012-6024-BLK	24	12
	1/4	0.250	0.125	0.3	PHD-016-4025-BLK			PHD-016-6020-BLK	20	10
	3/8	0.375	0.187	0.31	PHD-024-4025-BLK			PHD-024-6016-BLK	16	8
	1/2	0.5	0.250	0.32	PHD-032-4005-BLK	5	20	PHD-032-6014-BLK	14	7
	3/4	0.75	0.375	0.37	PHD-048-4005-BLK			PHD-048-6012-BLK	12	6
	1	1	0.5	0.46	PHD-064-4005-BLK			PHD-064-6008-BLK	8	4
	1 1/2	1.5	0.75	0.49	PHD-096-4005-BLK			PHD-096-6005-BLK	5	2.5
	2	2	1	0.6	PHD-128-4002-BLK			2	8	PHD-128-6002-BLK

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