



# DUNBAR – 1635S

2:1 SHRINK RATIO, SEMI-RIGID, FLAME RETARDANT, POLYOLEFIN TUBING


## Applications

DUNBAR-1635S is designed for wire strain-relief applications-terminations, wire splices, soldered or crimped connections. Provides tough and high abrasion resistance for delicate components in mechanical environments.

## Features

- ★ In stock for immediate shipments – Black, Clear & Optional Color
- ★ Shrink ratio: 50% or more in the radial direction, 5% or less in the axial direction
- ★ Continuous operating temperature: - 55°C to 135°C
- ★ Flammability: UL VW-1 (Black & Colors)
- ★ Highly heat-resistance

## Standard

- ★ MIL-DTL-23053/6 Class 1 (Clear is Class 2)
- ★ UL 224 (File Number: E319303) 
- ★ RoHS Compliant

## Specification Values

Properties		Test Method	Value	
Physical	Density	ASTM D -792	Min. 1.30g/cm <sup>3</sup> @23°C	
	Unaged	Tensile strength	ASTM D 638/UL 224	Min. 1.38kgf/mm <sup>2</sup>
		Elongation		Min. 200%
	Aged	Tensile strength	ASTM D 638/UL 224 158°C/168 hrs	Min. 1.05kgf/mm <sup>2</sup>
		Elongation		Min. 100%
	Heat shock		UL224	Pass @ 250 °C x 4 hrs
	Low Temperature flexibility		MIL-I-23053	No crack @ -55°C
Secant Modulus		UL 224	Max. 173MPa	
Electrical	Dielectric strength	UL 224	Min. 2500V	
	Volume resistivity	UL 224	Min. 1 x 100 <sup>14</sup> Ω - cm	
Chemical	Copper corrosion	UL 224 158°C/168 hrs	No corrosion	
	Copper stability		No sign of degradation Min. 100%	
	Flammability (VW-1)	UL 224	Pass	

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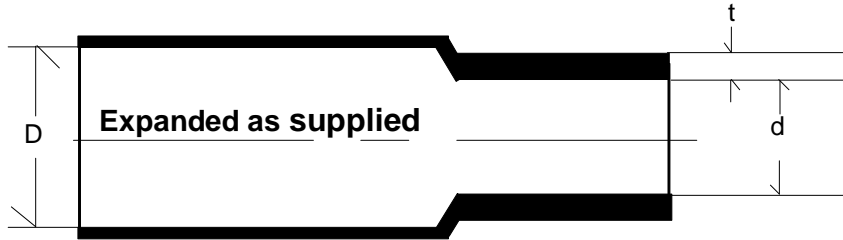
**Dunbar Associates**  
Your Stocking Partner for Quality Components

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Fully recovered after heating

## Product Dimensions

Minimum Shrink Temperature: 130°C

Size	Expanded		Recovered				Standard Spool Length
	Internal Diameter Minimum (D)		Internal Diameter Maximum (d)		Total Wall Thickness Minimum (t)		
Inch Size	In.	mm	In.	mm	In.	mm	Ft.
3/64"	0.047	1.2	0.023	0.58	0.013	0.33	500
1/16"	0.063	1.6	0.031	0.79	0.014	0.36	500
3/32"	0.094	2.4	0.046	1.17	0.017	0.43	500
1/8"	0.126	3.2	0.062	1.57	0.017	0.43	500
3/16"	0.189	4.8	0.093	2.36	0.017	0.43	250
1/4"	0.252	6.4	0.125	3.18	0.022	0.56	250
3/8"	0.378	9.6	0.187	4.75	0.022	0.56	200
1/2"	0.500	12.7	0.250	6.35	0.022	0.56	200
3/4"	0.752	19.1	0.375	9.53	0.027	0.69	100
1"	1.0	25.4	0.5	12.70	0.030	0.76	100
1-1/2"	1.5	38.1	0.8	19.10	0.034	0.86	100
2"	2.0	50.8	1.0	25.40	0.038	0.97	100
3"	3.0	76.2	1.5	38.10	0.046	1.17	100
4"	4.0	101.6	2.0	50.80	0.046	1.17	100
5"	5.0	127.0	2.5	63.50	0.046	1.17	100
Metric Size							
1.0	0.039	1.0	0.020	0.50	0.014	0.36	Cut to meet your special orders
1.5	0.059	1.5	0.030	0.75	0.014	0.36	
2.0	0.079	2.0	0.039	1.00	0.017	0.43	
2.5	0.098	2.5	0.049	1.25	0.017	0.43	
3.0	0.118	3.0	0.059	1.50	0.017	0.43	
3.5	0.138	3.5	0.069	1.75	0.017	0.43	
4.0	0.157	4.0	0.079	2.00	0.017	0.43	
5.0	0.197	5.0	0.098	2.50	0.022	0.56	
6.0	0.236	6.0	0.118	3.00	0.022	0.56	
7.0	0.276	7.0	0.138	3.50	0.022	0.56	
8.0	0.315	8.0	0.157	4.00	0.022	0.56	
9.0	0.354	9.0	0.177	4.50	0.022	0.56	
10.0	0.394	10.0	0.197	5.00	0.022	0.56	
11.0	0.433	11.0	0.217	5.50	0.022	0.56	
12.0	0.472	12.0	0.236	6.00	0.022	0.56	
13.0	0.512	13.0	0.256	6.50	0.027	0.69	
14.0	0.551	14.0	0.276	7.00	0.027	0.69	
15.0	0.591	15.0	0.295	7.50	0.027	0.69	
16.0	0.630	16.0	0.315	8.00	0.027	0.69	
18.0	0.709	18.0	0.354	9.00	0.030	0.76	
20.0	0.787	20.0	0.394	10.00	0.030	0.76	
22.0	0.866	22.0	0.433	11.00	0.030	0.76	
24.0	0.945	24.0	0.472	12.00	0.030	0.76	
25.0	1.0	25.0	0.5	12.50	0.034	0.86	
26.0	1.0	26.0	0.5	13.00	0.034	0.86	
28.0	1.1	28.0	0.6	14.00	0.034	0.86	
30.0	1.2	30.0	0.6	15.00	0.034	0.86	
32.0	1.3	32.0	0.6	16.00	0.034	0.86	
38.0	1.5	38.0	0.7	19.00	0.034	0.86	
50.0	2.0	50.0	1.0	25.00	0.038	0.97	
75.0	3.0	75.0	1.5	37.50	0.046	1.17	
100.0	3.9	100.0	2.0	50.00	0.046	1.17	
125.0	4.9	125.0	2.5	62.50	0.046	1.17	

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