

Nylon Untreated Sleeving

Flexible Nylon Sleeving

(-55°C to +105°C) (-67°F to +221°F)

Description

Varflex Nylon Untreated Sleeving is a flexible, protective sheathing that exhibits outstanding toughness and abrasion resistance. It is braided from high-tenacity nylon yarns that have been light and heat stabilized, have low dry-heat shrinkage (6%) and were designed specifically for industrial end uses. Of the 17 standard sizes of Nylon Untreated Sleeving offered by Varflex, ten of them are available both in standard wall (Type 94) and a heavier wall (Type 94H). Type 94H is identical to Type 94 except heavier nylon yarns are used, resulting in wall-thickness increases ranging from .003" to .010", depending upon inside diameter. The seven other standard sizes are supplied in single wall thicknesses and do not carry a type designation. (See Tables below.)

Specifications

Varflex Untreated Nylon Sleeving conforms to Defense Supply Center Richmond's Commercial Item Description (CID) A-A-59301 (latest revision) covering "Sleeving, Textile, Braided, Synthetic Polymer", and is made from polyamide (nylon) yarns conforming to Military Specification MIL-C-572 (latest revision), Type P (polyamide), Form Y (yarn).

Applications

Varflex Nylon Untreated Sleeving is intended for use as mechanical protection in consumer, commercial, and industrial applications where flexibility, abrasion resistance, and toughness are required. Although not intended as primary electrical insulation, its suppleness and expandability make it the ideal choice, and contribute to its extensive use, as secondary insulation in wire harness assemblies where its ease of installation over irregular shapes and wire bundles provides definite assembly advantages.

Sizes

1/16" I.D. through 2" I.D. Other sizes subject to inquiry.

Standard Color

Black

Standard Packaging

Coils or spools at manufacturer's option, unless otherwise specified.

Size (I.D.)	Approximate Wall Thickness	
	Type 94	Type 94 H
3/16"	.026"	.029"
1/4"	.025"	.030"
5/16"	.025"	.030"
3/8"	.024"	.032"
7/16"	.024"	.032"
1/2"	.024"	.034"
5/8"	.033"	.038"
3/4"	.037"	.042"
7/8"	.036"	.042"
1"	.040"	.047"

Size (I.D.)	Approximate Wall Thickness
	No Type Designation
1/16"	.027"
1/8"	.027"
1-1/8"	.040"
1-1/4"	.048"
1-1/2"	.044"
1-3/4"	.045"
2"	.047"

Nylon Untreated Sleeving Typical Properties

Property	Performance
Physical	
Specific Gravity, g/cu cm	1.14
Elongation at Break, percent	14.9
Breaking Tenacity, g/d	7.1
Moisture Regain, percent	4.5

Chemical	
Effects of Acids and Alkalies	Unaffected by most mineral acids, except hot mineral acids. Dissolves with partial decomposition in concentrated solutions of hydrochloric, sulfuric, and nitric acids. Soluble in formic acid. Substantially inert in alkalies.
Effects of Bleaches and Solvents	Can be bleached in most bleaching solutions. Generally insoluble in most organic solvents. Soluble in some phenolic compounds.
Resistance to Mildew, Aging and Sunlight	Excellent resistance to mildew and aging. Prolonged exposure to sunlight causes some deterioration.

Thermal	
Shrinkage	
- In Water at 100°C (212°F), percent	7.2
- In Dry Air at 177°C (350°F), percent	5.8
Shrinkage Tension	
- in Dry Air at 160°C (320°F), g/d	0.40
Thermal Conductivity, k, Btu • in/(h•ft ² •°F)	1.7
Zero Strength Temperature*, °C (°F)	245 (476)
Effects of Heat	
- Softens, °C (°F)	180 (356)
- Sticks, °C (°F)	230 (446)
- Melts, °C (°F)	254 (489)

* Temperature at which the yarn breaks under a load of 0.1 g/d

Notes:

Typical properties of heavy-denier industrial yarns as reported in DuPont's Multifiber Bulletin X-273. Information contained here is precise and reliable. However, being unique, each end-use should be evaluated to satisfy its specific requirements.



Electrical Insulating Sleeving

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