

## Varspan Sleaving

### Expandable Polyester Monofilament Sleaving

(-70°C to +125°C) (-94°F to +257°F)

### Expandable Halar® Monofilament Sleaving

(-70°C to +150°C) (-94°F to +302°F)

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#### Description

Varspan expandable monofilament sleavings are designed to provide mechanical protection to wires, cables, harnesses, hydraulic lines, tubes, hoses, etc., as well as to components of both regular and irregular shapes. Their ability to expand to two or three times their original ID allows for ease of application and their “open-weave” braid construction, which will not trap heat or moisture, results in a cost-effective bulk/weight ratio.

Varspan is available as an expandable polyester monofilament sleaving in three types, or as an expandable Halar® E-CTFE (ethylene chlorotrifluoroethylene) monofilament sleaving.

Varspan expandable sleaving made with polyester monofilaments is offered in both general-purpose (Varspan GP) and flame-retardant (Varspan FR) yarns. The general-purpose version is also available in heavy duty (Varspan HD), which is braided with a thicker .015" diameter monofilament strand for applications where additional abrasion and cut-through protection is required. All exhibit good mechanical, chemical and thermal stability in a temperature range of -70°C to +125°C.

**Varspan GP and Varspan HD are UL Certified under UL File #E491276.**

**Varspan GP is certified under FMVSS 302.**

Varspan HT expandable sleaving is made with Halar® E-CTFE monofilaments and, in addition to being flame retardant, offers superior resistance to most solvent acids and bases. Varspan HT can be used at higher operating temperatures (-70°C to +150°C) than Varspan GP, FR, and HD sleavings.

Cut with a hot-blade device for frayless ends or turn ends inward.

#### Applications

All Varspan sleavings are suitable for military, industrial, marine, aeronautical, transportation, electronic, and manufacturing applications where mechanical protection and resistance to chemicals, jet fuel, diesel fuel, gasoline, lubricating oils, solvents, hydraulic fluids, water and salt water are prerequisites and flexibility through a wide range of operating temperatures is desired.

**Varspan FR** offers a higher degree of flame retardation required for special applications.

**Varspan HT** (Halar®) in addition to flame retardation and its suitability for use at higher operating temperatures than the other Varspan sleavings, is recommended for use where the sleaving may be exposed to harsher chemicals and more severe environments.

#### Sizes and Colors

**Varspan GP** - 1/16" through 3" I.D. Available in all colors including clear; also available in color combinations/patterns.

**Varspan FR** - 1/8" through 2-1/2" I.D. Black or natural (white), with the FR identified by a criss-cross (diamond) pattern of two contrasting tracer strands.

**Varspan HD** - 3/8" through 3" I.D., Black color only

**Varspan HT** (Halar®) - 1/8" through 2-5/8" I.D. Black or natural (white), identified by one contrasting tracer strand

#### Standard Packaging

Spools. See reverse side for details

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# Varspan Sleeving Typical Properties

Nominal Size (inches)	Min-Max Expansion (inches)	Weight (lb/100ft)	Standard Spool Length (ft.)
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## Varspan GP and Varspan FR (average strand diameter .010")

1/16 (GP only)	3/64 – 5/32	0.12	1,000
1/8	1/16 – 3/16	0.18	1,000
1/4	1/8 – 3/8	0.27	1,000
1/4 (3-end, GP only)	1/8 – 5/16	0.37	1,000
3/8	3/16 – 1/2	0.57	500
1/2	1/4 – 3/4	0.74	500
5/8 (GP only)	3/8 – 1-1/4	0.99	250
3/4	1/2 – 1-1/4	1.25	250
1 and 1-1/4	3/4 – 1-5/8	1.59	250
1-1/2	1 – 2-1/8	1.96	250
1-3/4	1-1/4 – 2-1/4	2.63	200
2	1-3/4 – 3-1/2	3.43	200
2-1/2	1-7/8 – 3-3/4	3.75	100
3 (GP only)	2-1/2 – 4	3.79	100

## Varspan HD (average strand diameter .015")

3/8	3/16 – 1/2	0.83	500
5/8	5/16 – 7/8	1.14	500
1	1/2 – 1-1/4	1.74	250
1-1/2	1 – 2-1/2	2.57	250
2	1-1/2 – 3	3.48	100
3	2 – 4	4.35	50

## Varspan HT (Halar®) (average strand diameter .010")

1/8	3/32 – 1/8	0.25	500
1/4	1/8 – 3/8	0.40	500
1/2	1/4 – 7/8	1.20	500
3/4	1/2 – 1-1/4	1.70	250
1	1/2 – 1-3/8	2.30	250
1-1/4	3/4 – 1-1/2	2.80	250
1-7/8	1-1/4 – 2-1/2	4.00	75
2-5/8	1-3/4 – 3-1/2	6.00	50

### Note:

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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