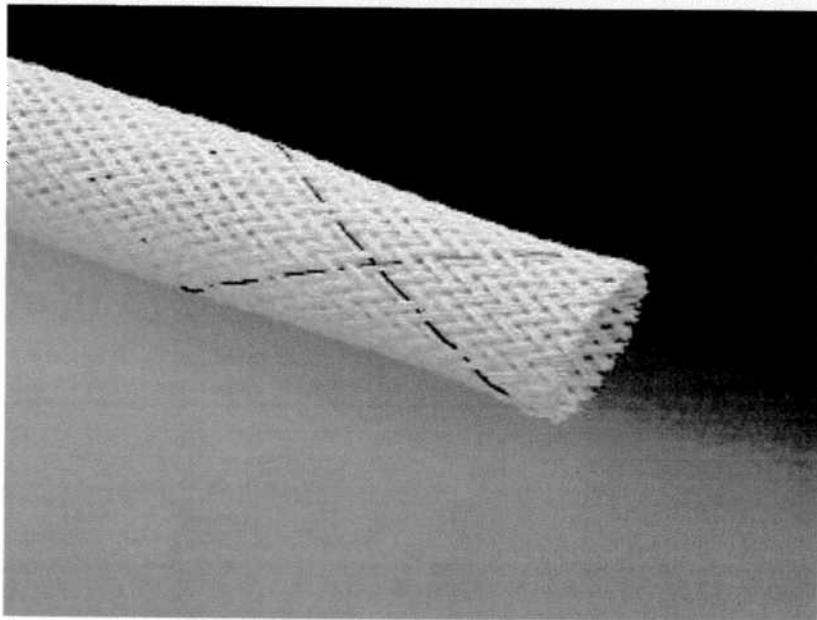


Product Highlights

- Rated to 125°C
- Low temperature flexibility to -70°C
- VW-1 sizes 1/4" to 1 3/4"
- UL Recognized Component for sizes 1/4" to 1 3/4"
- CSA File #LR52852
- Does not trap heat or humidity
- Rot-free
- Self-fitting over many shapes and sizes
- Self-extinguishing when used to encase typical non-flammable wires or cables.
- Cost effective



Expando® FR

Self-fitting Protective Oversleeve

Bentley-Harris® Expando products are tough, lightweight oversleeves used to protect cable assemblies, hoses and wire harnesses from chafing, cutting and abrading. The open-weave construction of Expando products enables each size to expand to fit several application shapes and sizes. This open-weave construction also makes them highly flexible and resistant to trapping water, heat and humidity.

Expando FR is a braided, flame-retardant polyester (PET) sleeving designed for applications up to 125°C. This product is a UL Recognized Component which meets VW-1 flammability requirements. A general purpose industrial/commercial product, Expando FR balances the properties of mechanical and thermal stability with economy.

Expando FR protective oversleeve has many applications in the aeronautical, marine, electronic and general manufacturing industries. The ability of Expando FR to retain flexibility at low temperatures makes it ideal for exposed applications in weather stations, navigation beacons, radar antennas, and airborne and space systems.

BentleyHarris®
Protection Products

Performance Data - Expando® FR

Property	Test Method	Value
Filament Diameter		.010"
Melt Temperature	ASTM D-3418	239°C
Low Temperature Flexibility	MIL-DTL-23053E	-70°C
Flammability	UL 1441	VW-1
Smoke Density	ASTM E-1354	D _{mc} = 5.63
Hard Vacuum	ASTM E-595	
TML.		.22%
CVCM		.03%
WVR.		.11%
Copper Corrosivity	MIL-I-23053	No Effect
Fluid Resistance	MIL-I-23053	Tensile Retention
Jet Fuel JP-4 (MIL-T-5624)		100%
Hydraulic Fluid (MIL-H-5606)		100%
Lube Oil (MIL-I-7808)		100%
De-Ice Fluid (MIL-A-8243)		100%
Reference Oil #2 (ASTM D-471)		100%
Salt Water (O-S-1926)		99%

Product Specifications

Nominal Size (in)	Minimum Diameter (in)	Maximum Diameter (in)	Part Number	Typical Weight (lb/ft)	Spool Length (ft)
1/8	3/32	1/4	50210003XX	0.0016	2,000
1/4	1/8	7/16	50210006XX	0.0024	1,000
3/8	1/4	1/2	50210010XX	0.0052	500
1/2	1/4	3/4	50210013XX	0.0077	500
3/4	1/2	1 1/4	50210019XX	0.0120	500
1 1/4	3/4	1 3/4	50210032XX	0.0160	250
1 3/4	1 1/4	2 3/4	50210045XX	0.0270	250
2	1 1/2	3 1/2	50210051XX	0.0330	250
2 1/2	1 3/4	4 1/2	50210064XX	0.0460	250

XX = Color Code 32= Black with two white tracer strands
 23= White with two black tracer strands

* UL Recognized Component for sizes 1/4" to 1 3/4"



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