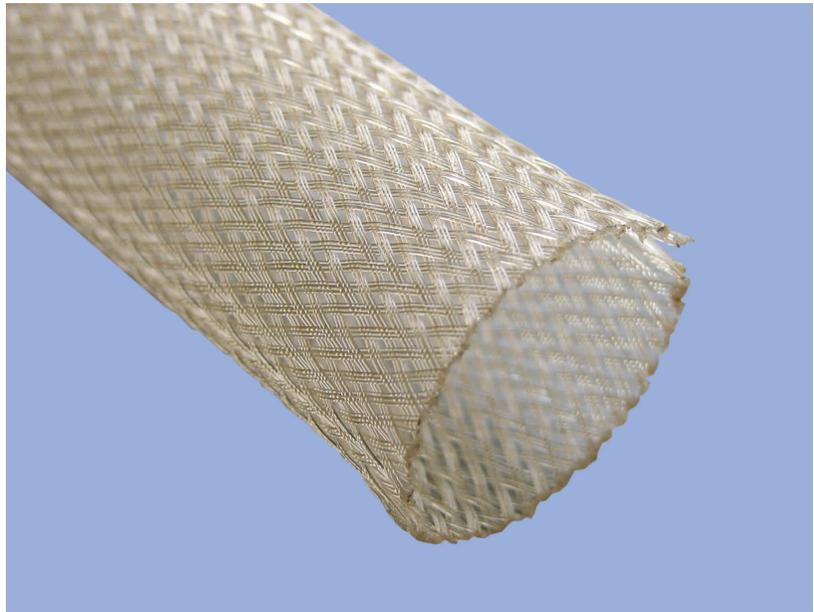


Product Highlights

- Rated to 200°C
- Low temperature flexibility to -70°C
- VW-1
- F.A.R. Part 25
- Halogen-free
- UL Recognized Component for size over 1/8"
- CSA File #LR52852
- Low toxicity, smoke generation and offgassing
- Does not trap heat or humidity
- Rot-free
- Self-fitting over many shapes and sizes



Expando[®] 686DM 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 686DM is a protective oversleeve designed for mechanical protection in temperature extremes and hostile environmental conditions. Rated to 200°C, Expando 686DM is a UL Recognized Component and meets VW-1 and F.A.R. part 25 flammability requirements.

Featuring a dual monofilament construction, Expando 686DM blends larger PEEK (polyetheretherketone) guard strands with PPS (polyphenylene sulfide) support strands. This blend makes 686DM rugged, yet light weight. The inherent properties of the raw materials give Expando 686DM low levels of flammability, toxicity, smoke generation and hard vacuum offgassing. Because of its high use temperature, Expando 686DM resists damage from high temperature air guns used with heatshrinkable elements such as strain reliefs, terminations and identification sleeves.

Expando 686DM is widely used in the aerospace industry for its outstanding properties in extreme environments. This product should be considered for aircraft, space, military, marine, and hostile-environment applications.

BentleyHarris[®]
Protection Products

Performance Data – Expando® 686 DM

Property	Test Method	Value
Filament Diameter		PPS 0.008"
		PEEK 0.011"
Melt Temperature	ASTM D-3418	PPS 285°C
		PEEK 334°C
Low Temperature Flexibility	MIL-DTL-23053E	-70°C
Flammability	UL 1441	VW-1
Flammability F.A.R. Part 25	Pass	
Smoke Density	ASTM E-662	D _{mc} = 2.3
Oxygen Index	ASTM D-2863	36.5%
Hard Vacuum	ASTM E-595	
TML.		.39%
CVCM		.00%
WVR.		.27%
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)		100%

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	52110003XX	0.0014	2,000
1/4	1/8	5/8	52110006XX	0.0030	1,000
3/8	3/16	3/4	52110010XX	0.0062	500
1/2	1/4	7/8	52110013XX	0.0080	500
3/4	1/2	1 3/8	52110019XX	0.0120	500
1 1/4	5/8	1 3/4	52110032XX	0.0160	250
1 3/4	3/4	2 1/4	52110045XX	0.0180	250
2	1 1/2	2 1/4	52110051XX	0.0300	250
2 1/2	1 7/8	3	52110064XX	0.0340	250

XX = Color Code 03 = Black 01 = Tan (Natural)

* UL Recognized Component for sizes over 1/8"



End view (enlarged diameter) of Expando 686DM showing PEEK guard strands (larger) and PPS support strands (smaller, gray) in a typical configuration.



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