



ABRASION/MECHANICAL

# Expando® PT & Expando® PT Plus

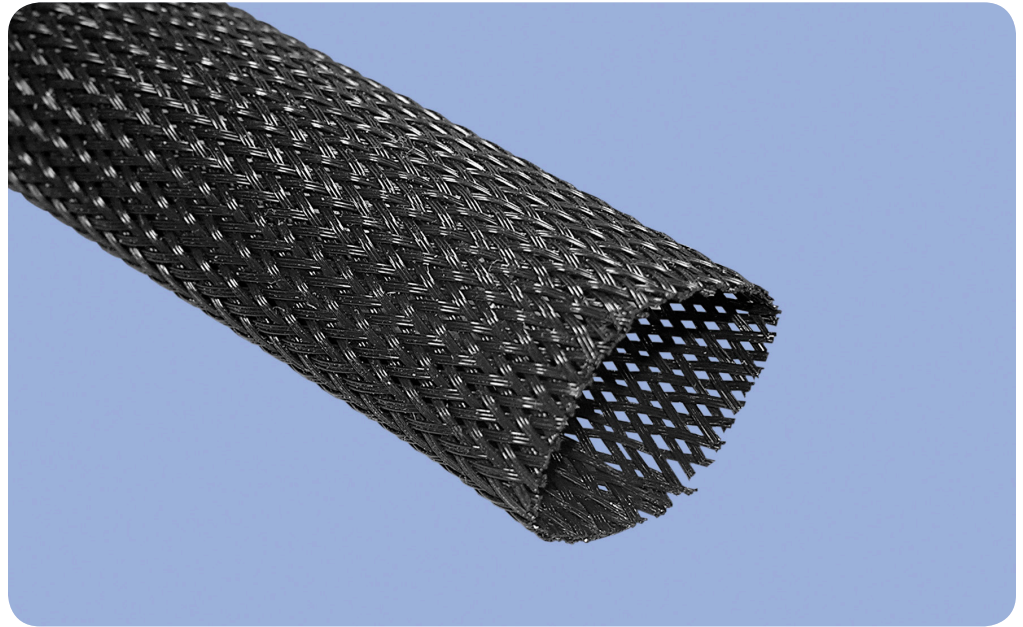
## Product Highlights

- Operating temperature from -70°C to +125°C (-94°F to +257°F)
- UL recognized component
- Expansion ratio 1:3
- 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
- Plus version eliminates the need for hot-knife cutting
- Available in 7 colors



Our manufacturing sites are certified ISO 9001, ISO/TS 16949, or AS/EN 9100, and ISO 14001

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

Expando PT and Expando PT Plus are braided polyester (PET) sleeves designed for applications up to 125°C. General purpose industrial/commercial products, Expando PT and Expando PT Plus balance the properties of mechanical and thermal stability with economy.

The patented Bentley-Harris Plus treatment makes end termination neater and easier. The Plus treatment creates a webbing between the filaments of the sleeving to reduce end fray during installation and through the life of the product. Because of the fray-resistant properties of Expando PT Plus, it can be cut with ordinary scissors, which reduces assembly time and eliminates the need for proper ventilation equipment required for hot-knife cutting.

Expando PT and Expando PT Plus oversleeves have many applications in the marine, electronic and general manufacturing industries. The ability of Expando PT and Expando PT Plus to retain flexibility at low temperatures make them ideal for exposed applications in weather stations, navigation beacons and radar antennas.

**BentleyHarris®**  
Protection Products

# Performance Data – Expando® PT & Expando® PT Plus

Property	Test Method	Result
Operating Temperature Range		-70°C to +125°C (-94°F to +257°F)
Low Temperature Flexibility	MIL-DTL-23053E	-70°C
Melt Temperature	ASTM D-3418	+250°C

\*Expando sleeving products made with the patented “Plus” treatment should not be used in hard vacuum environments nor immersed in solvents or liquids where Plus particulates could contaminate the system environment. Consult Federal-Mogul Systems Protection for information on protection products for these applications.

## Product Specifications

Longitudinal shrinkage should be taken into account when utilizing expansion properties of the sleeve

Commercial Part Number	Recommended Application Range mm (in)		Maximum Weight g/m (lb/ft)	Standard Packaging m (ft)
	Min Ø	Max Ø		
Expando PT Plus 3-X Expando PT 3-X	2 (3/32")	6 (1/4")	2.62 (0.0018) 2.62 (0.0018)	610 (2,000')
Expando PT Plus 6-X Expando PT 6-X	3 (1/8")	11 (7/16")	4.32 (0.0029) 3.93 (0.0026)	305 (1,000')
Expando PT Plus 10-X Expando PT 10-X	6 (1/4")	13 (1/2")	9.90 (0.0066) 9.49 (0.0064)	152 (500')
Expando PT Plus 13-X Expando PT 13-X	6 (1/4")	19 (3/4")	12.60 (0.0085) 11.61 (0.0078)	152 (500')
Expando PT Plus 19-X Expando PT 19-X	13 (1/2")	32 (1-1/4")	19.64 (0.0132) 18.01 (0.0121)	152 (500')
Expando PT Plus 32-X Expando PT 32-X	19 (3/4")	45 (1-3/4")	26.19 (0.0176) 24.85 (0.0167)	76 (250')
Expando PT Plus 45-X Expando PT 45-X	32 (1-1/4")	70 (2-3/4")	44.20 (0.0297) 42.56 (0.0286)	76 (250')
Expando PT Plus 51-X Expando PT 51-X	38 (1-1/2")	89 (3-1/2")	54.02 (0.0363) 53.34 (0.0358)	76 (250')
Expando PT Plus 64-X Expando PT 64-X	45 (1-3/4")	114 (4-1/2")	58.17 (0.0391) 63.40 (0.0426)	76 (250')

X = Color Code:    0 = Black    9 = Natural    6 = Blue    4 = Yellow  
                           2 = Red        3 = Orange    8 = Gray

## Part Numbering System

Example	Product Name	Size	Color	Quantity
	Expando PT Plus	3	0 (black)	610m

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