

# **Expando® HTNS-L/HO**

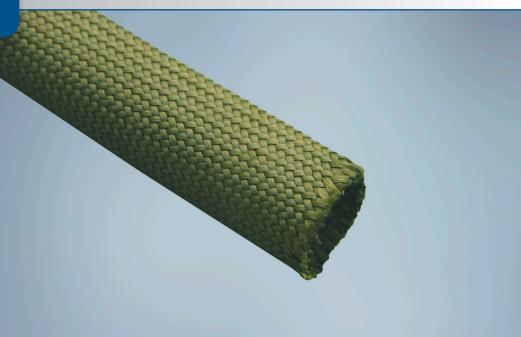


### **Product Highlights**

- Operating temperature from -60°C to +240°C (-76°F to +464°F)
- ASD EN 6049-003
- 1:2 expansion ratio
- Thin wall
- Lightweight
- Self-extinguishing
- Excellent abrasion protection
- Resistant to gamma and x-rays
- Water repellent



Our manufacturing sites are certified ISO 9001, IATF 16949, or AS/EN 9100, ISO 14001 and ISO 45001 (Selected Sites)



**Expando® HTNS-L/HO** is a thin wall braided sleeve manufactured from the meta-aramid Nomex<sup>®</sup>. Its highly expandable structure allows easy installation over long lengths even after the fitting of end connectors with a limited range of product sizes.

Expando HTNS-L/HO's flexible, expandable and non-flammable properites ensure excellent performance in the most diverse and aggressive environments. The product is designed for the protection of wire and cable bundles against flame, high temperatures, and mechanical abrasion.

The properties of Expando HTNS-L/HO ensure excellent resistance to gamma and x-rays.

Expando HTNS-L/HO has a water repellent treatment (HO) to reduce humidity absorption and to improve impermeability to fluids.

Expando HTNS-L/HO has various applications in the military, marine and aeronautical industries.

Expando products are tough, lightweight oversleeves used to protect cable assemblies, hoses and wire harnesses from chafing, cutting and abrading. The openbraid 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.

Nomex is a registered trademark of E.I. DuPont de Nemours.



## **Performance Data – Expando® HTNS-L/HO**

Property	Test Method	Result	
Operating Temperature		-60°C to +240°C (-76°F to +464°F) (continuous) Up to +310°C (+590°F) (short term)	
Carbonization	Above +370°C (+698°F)	Does not melt	
Abrasion Resistance	EN 6059 Part 403	Pass	
Flame resistance	FAR 25 AMDT.25-72 § 853(b)	Pass	
Fluid resistance Fuel: JP5 (NATO F44) Hydraulic fluids Skydrol 5 00 B4 & L D4 Mineral oil: MIL-L-7870A Synthetic oil: MIL-L 23699 Cleaning fluids: Forane 141B & MIL-L-87936 De-Icing fluid: MIL-A-8243	EN 6059 Part 303 (24h with various temperatures)	Pass Pass Pass Pass Pass Pass Pass Pass	
Humidity resistance	1000 h at +150°C (+302°F) in air saturated with water vapor	Retains 70% of its original tensile strength	
Water repellent	EN 6059 Part 305	Pass	

All numeric performance data shows average or typical values. Please consult your sales representative for product drawings, test reports and OEM approvals.

### **Product Specifications**

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

Commercial	Recommended Application Range mm (in)		Max Weight	Standard Packaging	
Part Number	Min Ø	Max Ø	g/m (lbs/ft)	m (ft)	
Expando HTNS-L/HO 2-X	1 (1/32")	2 (1/16")	3.0 (0.002)	100 (328′)	
Expando HTNS-L/HO 4-X	2 (1/16")	4 (3/16")	4.0 (0.003)	100 (328′)	
Expando HTNS-L/HO 6-X	4 (3/16")	8 (5/16")	8.5 (0.006)	100 (328') 50 (164') 50 (164') 50 (164') 50 (164') 50 (164')	
Expando HTNS-L/HO 8-X	6 (1/4")	12 (7/16")	11.5 (0.008)		
Expando HTNS-L/HO 10-X	8 (5/16")	16 (5/8")	14.0 (0.009)		
Expando HTNS-L/HO 15-X	10 (3/8")	20 (3/4")	17.5 (0.012)		
Expando HTNS-L/HO 20-X	12 (7/16")	24 (15/16")	22.0 (0.015)		
Expando HTNS-L/HO 25-X	15 (9/16")	30 (1-3/16")	32.5 (0.022)		
Expando HTNS-L/HO 30-X	20 (3/4")	40 (1-1/2")	39.5 (0.027)	50 (164')	

**X = Color Code:** 5 = green 9 = ivory 2 = red 0 = black 3 = orange

#### **Part Numbering System**

Example	Description	Size	Color	Quantity
	Expando HTNS-L/HO	4	5 (green)	100m



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