ADVANCED ENGINEERING
Technical Data Sheet

HALAR®

- Meets UL 2024
- VW-1, FAR 25 Approved
- Expands Up To 150%
- Resists Gasoline And Engine Chemicals
- Cut And Abrasion Resistant
- Easy To Install

Put-Ups

Nominal Size	Part #	Expansion Range		Bulk Spool	Shop Spool	Available Colors	Lbs/ 100′
		Min	Max				
1/8″	HTN0.13	3/32″	1/4″	1,000′	225′	2	0.25
1/4″	HTN0.25	1/8″	7/16″	1,000′	200′	2	0.38
3/8″	HTN0.38	3/16″	5/8″	500′	125′	2	0.86
1/2″	HTN0.50	1/4″	3/4″	500′	100′	2	1.10
3/4″	HTN0.75	1/2″	1 1/4″	250′	75′	2	1.70
1″	HTN1.00	5/8″	1 5/8″	250′	65′	2	2.20
1 1/4″	HTN1.25	3/4″	1 3/4″	250′	50′	2	2.60
1 3/4″	HTN1.75	1 1/4″	2 3/4″	200′	30′	2	4.40
2″	HTN2.00	1 1/2″	3 1/2″	200′	50′	2	4.60

Very Low Outgassing, Self-Extinguishing UL-2024 Plenum Rated Sleeving

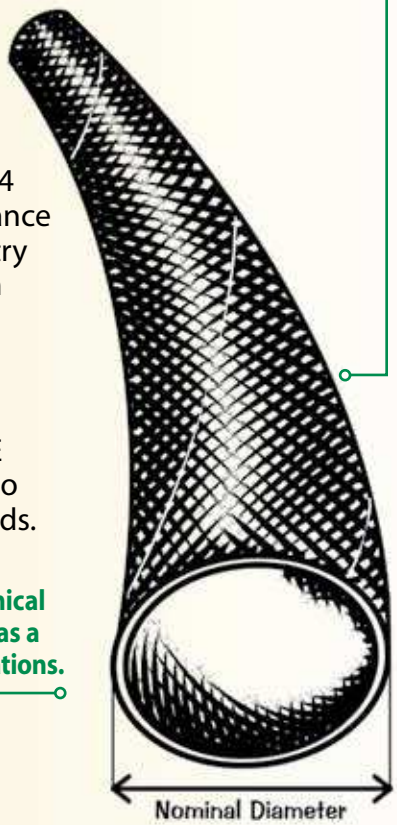
HALAR® (HT) self-extinguishing sleeving is used where flammability, high temperature endurance and low outgassing are primary concerns. HT is braided from 11 mil ethylene chlorotrifluoroethylene (ECTFE) copolymer monofilament.

Because of its low flame spread and smoke generation properties, HT has received UL 2024 and NFPA 262 plenum listings, UL flame resistance rating of VW-1 and exceeds automotive industry requirements of FMVSS 302, as well as aviation industry requirements of FAR 25.

HT resists a wide range of corrosive chemicals and organic solvents, including strong acids, chlorine and aqueous caustics. HALAR® ECTFE also maintains useful properties on exposure to Cobalt 60 radiation at doses up to 200 megarads.

Halar's low outgassing, as well as its heat, chemical and radiation properties, make it ideal for use as a component in technologically advanced applications.

Colors Available:
2 = TB & TW.



Material HT
Ethylene-chlorotrifluoroethylene

Grade
HTN

Monofilament Diameter
.011″

Drawing Number
TF001HT-WD

Colors Available:

Black with White Tracer (TB)
and White with Black Tracer (TW).

TECHFLEX
Braided Sleeving Products
www.techflex.com
800.323.5140 • 973.300.9242 • fax: 973.300.9409
29 Brookfield Dr • Sparta, NJ 07871

VW-1 Plenum FAR-25

ADVANCED ENGINEERING
Technical Data Sheet

HALAR®

FLEXO HT
PLENUM RATED HALAR

ABRASION

Abrasion Resistance
Medium

Abrasion Test Machine
Taber 5150

Abrasion Test Wheel
Calibrase H-18

Abrasion Test Load
500g

Room Temperature
71°F

Humidity
58%

Material Destroyed
600 Test Cycles

Pre-Test Weight
6,354.9 mg

Post-Test Weight
5,922.8 mg

Test End Loss Of Mass Point Of Destruction
432.1 mg

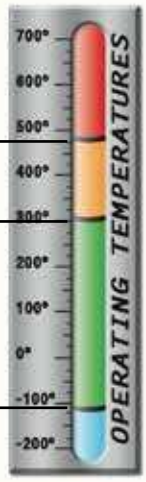
FLAMMABILITY

Rating_____FAR 25, VW-1

Melt Point
ASTM D-2117
482°F (250°C)

Maximum Continuous
Mil-I-23053
302°F (150°C)

Minimum Continuous
-103°F (-75°C)



Chemical Resistance

1=*No Effect* 2=*Little Effect* 3=*Affected* 4=*More Affected* 5=*Severely Affected*

Aromatic Solvents	1
Aliphatic Solvents	1
Chlorinated Solvents	1
Weak Bases	1
Salts	1
Strong Bases	1
Salt Water *0-S-1926*	1
Hydraulic Fluid *MIL-H-5606*	1
Lube Oil *MIL-L-7808*	1
De-Icing Fluid *MIL-A-8243*	1
Strong Acids	1
Strong Oxidants	1
Esters/Keytones	2
UV Light	1
Petroleum	1
Fungus *ASTM G-21*	1
Halogen Free	Yes
RoHS	Yes
SVHC	

PHYSICAL PROPERTIES

Monofilament Diameter *ASTM D-204*	.011
Flammability Rating *FMVSS-302 Approved*	FAR 25, VW-1
Recommended Cutting	Hot Knife
Colors	2
Wall Thickness	.028
Tensile Strength (Yarn) *ASTM D-2256 Lbs*	4.3
Specific Gravity *ASTM D-792*	1.68
Moisture Absorption *% ASTM D-570*	.02
Hard Vacuum Data *ASTM E-595 at 10-5 torr*	
TML	.18
CVCM	.02
WVR	0
Smoke D-Max *ASTM E-662*	94
Outgassing	Low
Oxygen Index *ASTM D-2863*	64

www.techflex.com