

## INSULTHERM® ULTRA FLEX

### CONTINUOUS FILAMENT E-TYPE GLASS · WITHSTANDS TEMP UP TO 1,200°F PROTECTS EXPOSED WIRES AND CABLES FROM ENGINE & EXHAUST

INSULTHERM® ULTRA FLEX® fiberglass sleeving is ideal for the protection of wires and hoses exposed to the heat generated from high performance engine and exhaust components. The heat treated sleeving cuts with scissors and is compatible with most bonding and saturation systems. Insultherm® Ultra Flex® expands slightly, allowing it to slide easily over wires and follow curves and contours without binding.

#### SIZING CHART

Nominal Size	Part #	Diameter	Wall Thickness	*Put-Ups		Available Colors	Lbs/100'
				M	L		
24	FHNG.24NT	.022"	.005"	250'	500'	1	.078
22	FHNG.22NT	.027"	.005"	250'	500'	1	.120
20	FHNG.20NT	.034"	.009"	250'	500'	1	.120
18	FHNG.18NT	.042"	.011"	250'	500'	1	.116
17	FHNG.17NT	.047"	.011"	250'	500'	1	.116
16	FHNG.16NT	.053"	.011"	250'	500'	1	.166
14	FHNG.14NT	.066"	.011"	250'	500'	1	.280
13	FHNG.13NT	.076"	.011"	250'	500'	1	.280
12	FHNG.12NT	.085"	.011"	100'	250'	1	.296
11	FHNG.11NT	.095"	.011"	100'	250'	1	.384
10	FHNG.10NT	.106"	.011"	100'	250'	1	.384
9	FHNG.09NT	.118"	.011"	100'	250'	1	.384
8	FHNG.08NT	.133"	.011"	100'	250'	1	.296
7	FHNG.07NT	.148"	.013"	100'	250'	1	.480
6	FHNG.06NT	.166"	.013"	100'	250'	1	.480
5	FHNG.05NT	.186"	.013"	100'	250'	1	.532
4	FHNG.05NT	.208"	.016"	100'	250'	1	.632
3	FHNG.03NT	.234"	.016"	100'	250'	1	.852
2	FHNG.02NT	.263"	.016"	100'	250'	1	1.02
1	FHNG.01NT	.294"	.016"	50'	100'	1	1.18
0	FHNG.00NT	.330"	.016"	50'	100'	1	1.78
¼"	FHN0.25NT	.250"	.010"	50'	100'	1	.650
5/16"	FHN0.31NT	.313"	.016"	50'	100'	1	1.00
3/8"	FHN0.38NT	.375"	.012"	50'	100'	1	1.79
7/16"	FHN0.44NT	.438"	.018"	50'	100'	1	2.04
½"	FHN0.50NT	.500"	.013"	50'	100'	1	2.28
5/8"	FHN0.63NT	.625"	.024"	50'	100'	1	2.56
¾"	FHN0.75NT	.750"	.024"	50'	100'	1	4.16
1"	FHN1.00NT	1.000"	.024"	50'	100'	1	6.11

\*Put-Ups: "M" = Shop Spool and "L" = Bulk Spool



## FEATURES

Material	Fiberglass
Grade	FHN
Wall Thickness	Refer To Chart
Drawing Number	TF001FHN-WD
Cutting	Scissors

## ABRASION

Abrasion Resistance	<b>MEDIUM</b>
Abrasion Test Machine	Taber 5150
Abrasion Test Wheel	Calibrase H-18
Abrasion Test Load	500g
Room Temperature	78°F
Humidity	72%
Material Destroyed	1,000 Test Cycles
Pre-Test Weight	3,374.0 mg
Post-Test Weight	2,839.3 mg
Test End Loss Of Mass Point Of Destruction	534.7 mg

## PHYSICAL PROPERTIES

Monofilament Diameter (ASTM D-204)	NA
Flammability Rating	VW-1
Recommended Cutting	Scissors
Colors	1
Wall Thickness	.005"-.024"
Tensile Strength (Yarn) (ASTM D-2256 Lbs)	NA
Specific Gravity (ASTM D-792)	1.0-1.8
Moisture Absorption % (ASTM D-570)	.01
Hard Vacuum Data (ASTM E-595 at 10-5 torr)	NA
TML	.01
CVCM	.00
WVR	.00
Smoke D-Max (ASTM E-662)	NA
Outgassing	Low
Oxygen Index (ASTM D-2863)	NA

## CERTIFICATIONS



## COLORS



Natural (NT)

## FLAMMABILITY

Rating	VW-1
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## OPERATING TEMPERATURES

Melt Point (ASTM D-2117)	2,048°F / 1,120°C
Maximum Continuous (Mil-I-23053)	1,202°F / 650°C
Minimum Continuous (Mil-I-23053)	-94°F / -70°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	2
Strong Oxidants	2
Esters/Ketones	1
UV Light	2
Petroleum	1
Fungus (ASTM G-21)	1
Halogen Free	Yes
RoHS	Yes
SVHC	None

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