

INSULTHERM® ULTRA FLEX

CONTINUOUS FILAMENT E-TYPE GLASS · WITHSTANDS TEMP UP TO 649°C

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	Expansion Range		*Put-Ups		Available Colors	Kgs/100m
				Min.	Max	M	L		
24	FHNG.24NT	0,6mm	0,1mm	0,5mm	0,7mm	76,2m	152,4m	1	0,12
22	FHNG.22NT	0,7mm	0,1mm	0,6mm	0,8mm	76,2m	152,4m	1	0,18
20	FHNG.20NT	0,9mm	0,2mm	0,8mm	1,0mm	76,2m	152,4m	1	0,18
18	FHNG.18NT	1,1mm	0,3mm	1,0mm	1,2mm	76,2m	152,4m	1	0,17
17	FHNG.17NT	1,2mm	0,3mm	1,1mm	1,4mm	76,2m	152,4m	1	0,17
16	FHNG.16NT	1,3mm	0,3mm	1,3mm	1,5mm	76,2m	152,4m	1	0,25
14	FHNG.14NT	1,7mm	0,3mm	1,6mm	1,9mm	76,2m	152,4m	1	0,42
13	FHNG.13NT	1,9mm	0,3mm	1,8mm	2,1mm	76,2m	152,4m	1	0,42
12	FHNG.12NT	2,2mm	0,3mm	2,1mm	2,3mm	30,5m	76,2m	1	0,44
11	FHNG.11NT	2,4mm	0,3mm	2,3mm	2,6mm	30,5m	76,2m	1	0,57
10	FHNG.10NT	2,7mm	0,3mm	2,6mm	2,8mm	30,5m	76,2m	1	0,57
9	FHNG.09NT	3,0mm	0,3mm	2,9mm	3,1mm	30,5m	76,2m	1	0,57
8	FHNG.08NT	3,4mm	0,3mm	3,3mm	3,6mm	30,5m	76,2m	1	0,44
7	FHNG.07NT	3,8mm	0,3mm	3,7mm	4,0mm	30,5m	76,2m	1	0,71
6	FHNG.06NT	4,2mm	0,3mm	3,9mm	4,5mm	30,5m	76,2m	1	0,71
5	FHNG.05NT	4,7mm	0,3mm	4,6mm	5,0mm	30,5m	76,2m	1	0,79
4	FHNG.05NT	5,3mm	0,4mm	5,2mm	5,7mm	30,5m	76,2m	1	0,94
3	FHNG.03NT	5,9mm	0,4mm	5,8mm	6,3mm	30,5m	76,2m	1	1,27
2	FHNG.02NT	6,7mm	0,4mm	6,6mm	7,1mm	30,5m	76,2m	1	1,52
1	FHNG.01NT	7,5mm	0,4mm	7,3mm	7,9mm	15,2m	30,5m	1	1,76
0	FHNG.00NT	8,4mm	0,4mm	8,3mm	8,8mm	15,2m	30,5m	1	2,65
¼"	FHN0.25NT	6,4mm	0,3mm	6,4mm	7,9mm	15,2m	30,5m	1	0,97
5/16"	FHN0.31NT	7,9mm	0,4mm	7,9mm	8,4mm	15,2m	30,5m	1	1,49
3/8"	FHN0.38NT	9,5mm	0,3mm	9,5mm	12,7mm	15,2m	30,5m	1	2,66
7/16"	FHN0.44NT	11,1mm	0,5mm	11,1mm	11,7mm	15,2m	30,5m	1	3,04
½"	FHN0.50NT	12,7mm	0,3mm	12,7mm	15,9mm	15,2m	30,5m	1	3,39
5/8"	FHN0.63NT	15,9mm	0,6mm	15,9mm	19,1mm	15,2m	30,5m	1	3,81
¾"	FHN0.75NT	19,1mm	0,6mm	19,1mm	22,2mm	15,2m	30,5m	1	6,19
1"	FHN1.00NT	25,4mm	0,6mm	25,4mm	31,8mm	15,2m	30,5m	1	9,09

*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	MEDIUM
Abrasion Test Machine	Taber 5150
Abrasion Test Wheel	Calibrase H-18
Abrasion Test Load	500g
Room Temperature	78°F / 26°C
Humidity	72%
Material Destroyed	1 000 Test Cycles
Pre-Test Weight	3 374,0mg
Post-Test Weight	2 839,3mg
Test End Loss Of Mass Point Of Destruction	534,7mg

PHYSICAL PROPERTIES

Monofilament Diameter (ASTM D-204)	NA
Flammability Rating	VW-1
Recommended Cutting	Scissors
Colors	1
Wall Thickness	0,1mm - 0,6mm
Tensile Strength (Yarn) (ASTM D-2256 Lbs)	NA
Specific Gravity (ASTM D-792)	1,0 - 1,8
Moisture Absorption % (ASTM D-570)	0,01%
Hard Vacuum Data (ASTM E-595 at 10 ⁻⁵ torr)	NA
TML	0,01
CVCM	0,00
WVR	0,00
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