



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



- UL Recognized
- Continuous Filament E-Type Glass
- Resists Abrasion, Vibration, And Mechanical Stress
- Easy To Install - Cuts With Scissors
- Stays Flexible In Low Temps



**Cut Cleanly**  
**Scissors**

**Material**  
Fiberglass

**Grade**  
FHN

**Wall Thickness**  
Refer to Chart

Nominal Size	Diameter	Part #	Wall Thickness	Expansion Range		Standard Spool Put-Ups		Available Colors
				Min.	Max.	Bulk Spool	Shop Spool	
24	0.022"	FHNG.24NT	.005"	0.020"	0.027"	500'	250'	Natural (NT)
22	0.027"	FHNG.22NT	.005"	0.025"	0.032"	500'	250'	Natural (NT)
20	0.034"	FHNG.20NT	.009"	0.032"	0.039"	500'	250'	Natural (NT)
18	0.042"	FHNG.18NT	.011"	0.040"	0.049"	500'	250'	Natural (NT)
17	0.047"	FHNG.17NT	.011"	0.045"	0.054"	500'	250'	Natural (NT)
16	0.053"	FHNG.16NT	.011"	0.051"	0.061"	500'	250'	Natural (NT)
14	0.066"	FHNG.14NT	.011"	0.064"	0.074"	500'	250'	Natural (NT)
13	0.076"	FHNG.13NT	.011"	0.072"	0.082"	500'	250'	Natural (NT)
12	0.085"	FHNG.12NT	.011"	0.081"	0.091"	250'	100'	Natural (NT)
11	0.095"	FHNG.11NT	.011"	0.091"	0.101"	250'	100'	Natural (NT)
10	0.106"	FHNG.10NT	.011"	0.102"	0.112"	250'	100'	Natural (NT)
9	0.118"	FHNG.09NT	.011"	0.114"	0.124"	250'	100'	Natural (NT)
8	0.133"	FHNG.08NT	.011"	0.129"	0.141"	250'	100'	Natural (NT)
7	0.148"	FHNG.07NT	.013"	0.144"	0.158"	250'	100'	Natural (NT)
6	0.166"	FHNG.06NT	.013"	0.152"	0.178"	250'	100'	Natural (NT)
5	0.186"	FHNG.05NT	.013"	0.182"	0.198"	250'	100'	Natural (NT)
4	0.208"	FHNG.04NT	.016"	0.204"	0.224"	250'	100'	Natural (NT)
3	0.234"	FHNG.03NT	.016"	0.229"	0.249"	250'	100'	Natural (NT)
2	0.263"	FHNG.02NT	.016"	0.258"	0.278"	250'	100'	Natural (NT)
1	0.294"	FHNG.01NT	.016"	0.289"	0.311"	100'	50'	Natural (NT)
0	0.330"	FHNG.00NT	.016"	0.325"	0.347"	100'	50'	Natural (NT)
1/4"	0.250"	FHN0.25NT	.010"	0.250"	0.313"	100'	50'	Natural (NT)
5/16"	0.313"	FHN0.31NT	.016"	0.313"	0.333"	100'	50'	Natural (NT)
3/8"	0.375"	FHN0.38NT	.012"	0.375"	0.500"	100'	50'	Natural (NT)
7/16"	0.438"	FHN0.44NT	.018"	0.438"	0.462"	100'	50'	Natural (NT)
1/2"	0.500"	FHN0.50NT	.013"	0.500"	0.625"	100'	50'	Natural (NT)
5/8"	0.625"	FHN0.63NT	.024"	0.625"	0.750"	100'	50'	Natural (NT)
3/4"	0.750"	FHN0.75NT	.024"	0.750"	0.875"	100'	50'	Natural (NT)
1"	1.000"	FHN1.00NT	.024"	1.000"	1.250"	100'	50'	Natural (NT)

### Braided Fiberglass Protects up to 1,200°F

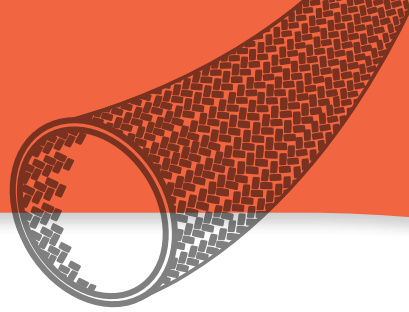
INSULTHERM ULTRAFLEX fiberglass sleeving is ideal for the protection of wires and hoses exposed to the heat generated from high performance engine and exhaust components.

The heat treated sleeving cuts with scissors and is compatible with most bonding and saturation systems.

Ultraflex expands slightly, allowing it to slide easily over wires and follow curves and contours without binding.

**"...will withstand extreme heat...  
provides the protection needed"**





**ABRASION**  **FLAMMABILITY**

**Abrasion Resistance**  
**Medium**

Rating \_\_\_\_\_ VW-1

**Abrasion Test Machine**  
**Taber 5150**

**Abrasion Test Wheel**  
**Calibrase H-18**

**Abrasion Test Load**  
**500g**

**Room Temperature**  
**78°F**

**Humidity**  
**72%**

**Material Destroyed**  
**1000 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**

 **CHEMICAL  
RESISTANCE**

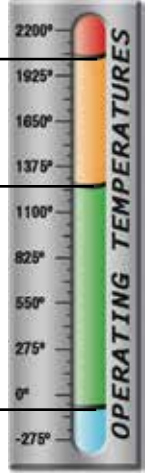
1=No Effect      4=More Affected  
2=Little Effect    5=Severely Affected  
3=Affected

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

**Melt Point**  
*ASTM D-2117*  
**2,048°F (1,120°C)**

**Maximum Continuous**  
*Mil-I-23053*  
**1,202°F (650°C)**

**Minimum Continuous**  
**-94°F (-70°C)**



 **PHYSICAL  
PROPERTIES**

Monofilament Diameter \_\_\_\_\_ NA  
*ASTM D-204*  
Flammability Rating \_\_\_\_\_ VW-1  
Recommended Cutting \_\_\_\_\_ Scissor  
Colors \_\_\_\_\_ 1  
Wall Thickness \_\_\_\_\_ .010-.024  
Tensile Strength (Yarn) \_\_\_\_\_  
*ASTM D-2256 Lbs*  
Specific Gravity ASTM D-792 \_\_\_\_ 1.0-1.8  
Moisture Absorption \_\_\_\_\_ .01  
% ASTM D-570  
Hard Vacuum Data \_\_\_\_\_  
*ASTM E-595 at 10-5 torr*  
TML \_\_\_\_\_ .01  
CVCM \_\_\_\_\_ .00  
WVR \_\_\_\_\_ .00  
Smoke D-Max \_\_\_\_\_  
*ASTM E-662*  
Outgassing \_\_\_\_\_ Low  
Oxygen Index \_\_\_\_\_  
*ASTM D-2863*