

Clean Cut FR

- **VW-1, Mil-202 Approved**
- **Cut and Abrasion Resistant**
- **Expands for Ease of Installation**
- **Halogen Free**
- **Temperature Range -94°F to 257°F**
- **Melt Temp. 482°F**

Scissor Cut for Field Installation, Will Not Support Combustion

CLEAN CUT FLAME RETARDANT (CC) has all of the same qualities that make our standard CC so easy to cut and install, with the added advantage of a flame inhibitor to provide an extra level of safety in certain applications.

Under normal conditions, Clean Cut FR will quickly self-extinguish and minimize flame spread and incidental damage to surrounding components.

The combination of flame retardance, ease of installation and nearly complete coverage makes Clean Cut FR an ideal solution for many industrial and advanced engineering applications.



Pro AV installers can incorporate CCF into cabling designs for concert, studio and nightclub installations.



Nominal Size	Part #	Expansion Range		Standard Spool Put-Ups		Available Colors	Lbs/100'
		Min.	Max.	Bulk Spool	Shop Spool		
1/8"	CCF0.13	1/8"	1/4"	1,000'	100'	TW & TB	0.40
1/4"	CCF0.25	5/32"	7/16"	1,000'	100'	TW & TB	0.46
3/8"	CCF0.38	3/16"	5/8"	500'	100'	TW & TB	0.74
1/2"	CCF0.50	1/4"	3/4"	500'	100'	TW & TB	0.82
3/4"	CCF0.75	5/8"	1"	250'	75'	TW & TB	1.11
1"	CCF1.00	3/4"	1 3/16"	250'	50'	TW & TB	1.24
1 1/4"	CCF1.25	1"	1 1/2"	250'	50'	TW & TB	1.56
1 1/2"	CCF1.50	1 1/4"	2"	250'	50'	TW & TB	1.85

CLEAN CUT FR

- Cuts Easily, Neatly and Maintains a Fray Resistant End
- Expands For Ease Of Installation
- Cut And Abrasion Resistant
- Mil-202 & VW-1 Approved
- Halogen Free



Cut Cleanly
Scissors

Material
Polyethylene Terephthalate

Grade
CCF

Monofilament Diameter
.008"

Drawing Number
TF001CCF-WD

Put-Ups

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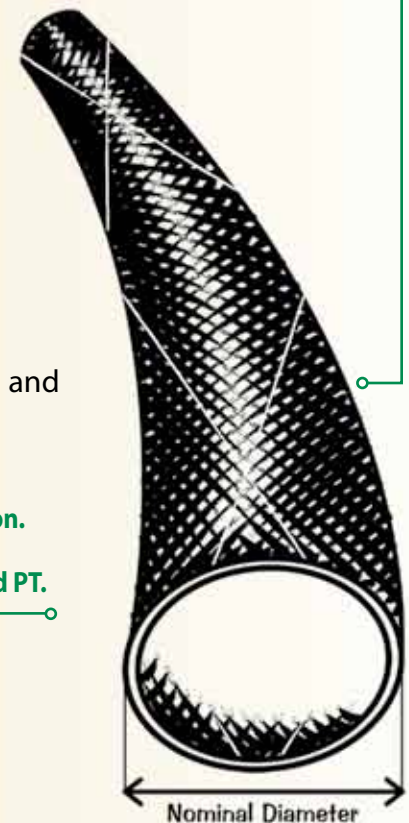
Cuts easily and neatly with regular scissors and maintains a fray resistant end during installation. When scissor cut, the end of CC will withstand heavier handling without fraying than standard PT.

Colors Available:



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

Colors Available:
2 = TW & TB



CLEAN CUT FR



Abrasion Resistance
Medium

Abrasion Test Machine
Taber 5150

Abrasion Test Wheel
Calibrase H-18

Abrasion Test Load
500g

Room Temperature
80°F

Humidity
70%

Very Minor Scuffing
100 Test Cycles

**Strands Frayed
And Rough Surface**
400 Test Cycles

**Scuffing And Several
Broken Strands**
500 Test Cycles

Material Destroyed
700 Test Cycles

Pre-Test Weight
3,602.0 mg

Post-Test Weight
3,373.9 mg

**Test End Loss Of Mass
Point Of Destruction**
228.1 mg



Rating _____ **UL VW-1**



Chemical Resistance

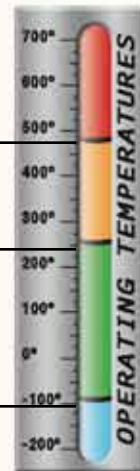
1=No Effect 4=More Affected
2=Little Effect 5=Severely Affected
3=Affected

Aromatic Solvents	_____	2
Aliphatic Solvents	_____	1
Chlorinated Solvents	_____	3
Weak Bases	_____	1
Salts	_____	1
Strong Bases	_____	2
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	_____	3
Strong Oxidants	_____	2
Esters/Keytones	_____	2
UV Light	_____	1
Petroleum	_____	1
Fungus ASTM G-21	_____	1
Halogen Free	_____	Yes
RoHS	_____	Yes
SVHC	_____	None

Melt Point
ASTM D-2117
482°F (250°C)

Maximum Continuous
Mil-I-23053
257°F (125°C)

Minimum Continuous
-94°F (-70°C)



PHYSICAL PROPERTIES

Monofilament Diameter	_____	.008
ASTM D-204		
Flammability Rating	_____	VW-1
FMVSS-302 Approved		
Recommended Cutting	_____	Scissor/HK
Colors	_____	2
Wall Thickness	_____	.024
Tensile Strength (Yarn)	_____	4
ASTM D-2256 Lb		
Specific Gravity ASTM D-792	_____	1.38
Moisture Absorption	_____	.1-.2
% ASTM D-570		
Hard Vacuum Data ASTM E-595		
TML	_____	.19
CVCM	_____	.04
WVR	_____	.06
Smoke D-Max	_____	275
ASTM E-66		
Outgassing	_____	Med
Oxygen Index	_____	31
ASTM D-2863		