



## FLEXO<sup>®</sup> FLAME RETARDANT COMPLIES TO HL2 ACCORDING TO THE RAILWAY STANDARD DIN EN 45545-2 EXPANDS UP TO 150%

Flexo<sup>®</sup> PET Flame Retardant (FR) sleeving is the perfect choice for electronic and high tech applications where flame retardance and durability are primary concerns. Ease of installation makes FR an efficient choice for long runs of wire or cable. The addition of an organic combustion inhibitor to our standard polyethylene terephthalate gives FR an Underwriters Lab and CSA flame resistance rating of VW-1. FR meets or exceeds automotive and aircraft engineering standards for flammability and flame retardance.

### SIZING CHART

Nominal Size	Part #	Min Expansion	Max Expansion	*Put-Ups		Available Colors	Lbs/100'
				M	L		
1/8"	FRN0.13	3/32"	1/4"	225'	1,000'	7	0.16
1/4"	FRN0.25	1/8"	7/16"	200'	1,000'	7	0.24
5/16"	FRN0.31	5/32"	15/32"	150'	500'	7	0.50
3/8"	FRN0.38	3/16"	1/2"	125'	500'	7	0.57
7/16"	FRN0.44	7/32"	5/8"	125'	500'	7	0.68
1/2"	FRN0.50	1/4"	3/4"	100'	500'	7	0.72
9/16"	FRN0.56	5/16"	7/8"	100'	500'	7	0.81
3/4"	FRN0.75	1/2"	1 1/4"	75'	250'	7	1.07
1"	FRN1.00	5/8"	1 5/8"	65'	250'	7	1.34
1 1/4"	FRN1.25	3/4"	1 3/4"	50'	250'	7	1.60
1 1/2"	FRN1.50	1"	2 1/2"	40'	200'	7	1.96
1 3/4"	FRN1.75	1 1/4"	2 3/4"	30'	200'	7	2.70
2"	FRN2.00	1 1/2"	3 1/2"	50'	200'	7	3.30
2 1/2"	FRN2.50	1 3/4"	4 1/2"	50'	200'	7	3.80
3"	FRN3.00	2 1/2"	4 3/4"	50'	100'	7	4.00

### 3 END CONSTRUCTION

1/4"	FR30.25	1/8"	3/8"	200'	1,000'	TB,GW, TW	0.39
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\*Put-Ups: "M" = Shop Spool and "L" = Bulk Spool



### FEATURES

Material	Polyethylene Terephthalate
Grade	FRN
Monofilament Diameter	.010"
Drawing Number	TF001FRN-WD
Cutting	Hot Knife

### CERTIFICATIONS





## ABRASION

Abrasion Resistance	<b>MEDIUM</b>
Abrasion Test Machine	Taber 5150
Abrasion Test Wheel	Calibrase H-18
Abrasion Test Load	500g
Room Temperature	80°F
Humidity	70%
Minor Scuffing	100 Test Cycles
Several Broken Strands & Small Hole	500 Test Cycles
Material Destroyed	700 Test Cycles
Pre-Test Weight	4,124.0 mg
Post-Test Weight	3,884.7 mg
Test End Loss Of Mass Point Of Destruction	239.3 mg

## PHYSICAL PROPERTIES

Monofilament Diameter (ASTM D-204)	.010"
Flammability Rating (FMVSS-302 Approved)	VW-1
Recommended Cutting	Hot Knife
Colors	7
Wall Thickness	.025"
Tensile Strength (Yarn) (ASTM D-2256 Lbs)	5
Specific Gravity (ASTM D-792)	1.38
Moisture Absorption % (ASTM D-570)	.1-.2
Hard Vacuum Data (ASTM E-595 at 10 <sup>-5</sup> torr)	
TML	.19
CVCM	.04
WVR	.06
Smoke D-Max (ASTM E-662)	275
Outgassing	Medium
Oxygen Index (ASTM D-2863)	31

## COLORS



Black (BK), White w/Black Tracer (TW), Gray w/White Tracer (GW), Black w/White Tracer (TB), Black w/Yellow Tracer (YS), Black w/Orange Tracer (OS), Black w/Red Tracer (SP)

## FLAMMABILITY

Rating (FMVSS 302 and SAE J369)	UL VW-1 Pass
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## OPERATING TEMPERATURES

Melt Point (ASTM D-2117)	482°F / 250°C
Maximum Continuous (Mil-I-23053)	257°F / 125°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	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/Ketones	2
UV Light	1
Petroleum	1
Fungus (ASTM G-21)	1
Halogen Free	Yes
RoHS	Yes
SVHC	None