

# "FR" Tubing (Flame Retardant)



CLASSIFIED FOR FLAME AND SMOKE ONLY — NFPA 90A — 1985

Developed specifically for controlling flame spread and smoke generation, Dekoron 1219 FR (flame retardant) Tubing can be installed in accordance with NFPA. Standard 90A "Installation of Air Conditioning and Ventilation Systems 1985."

Dekoron 1219 FR Tubing is made of an exclusive "linear" low-density polyethylene based formulation that is UL recognized. It combines the physical characteristics and long-term stability of low density polyethylene with flame retardant properties. Look for UL Classification marking on product.

## Advantages

Dekoron 1219 FR Tubing prevents fire propagation, as it rapidly extinguishes after being removed from an open flame. "FR" Tubing is very similar to Dekoron "P" Tubing for flexibility, lightweight, abrasion resistance, high tensile strength and rugged environmental performance. To guarantee stress crack resistance, both the standard ASTM D1693 test for stress cracking of base materials and a modified test on finished tubing are performed.

## Easy to Install

Installation is simple and quick. Being flexible and lightweight, Dekoron 1219 FR Tubing can be installed by hand.

## How to Specify

Example: 1219-440B3 Dekoron 1219 FR tubing with red stripe, 1/4" O.D. x .040" wall, 250 ft lengths.

## Availability

Four standard sizes in coils. Black or Seven standard color stripes and shipped in convenient master pack quantities. 5/32" O.D. tubing supplied in black only.

## Standard Lengths

5/32"—500-foot lengths  
1/4"—250-, 500-, and 1,000-foot lengths  
3/8"—250- and 500-foot lengths  
1/2"—250-foot lengths

## Note

Authorities having jurisdiction should be consulted before installation.

The proper letter from the color chart below should be substituted for the "X" in the part number to indicate the color stripe desired. If no color letter is indicated, black will be supplied.

## Specifications

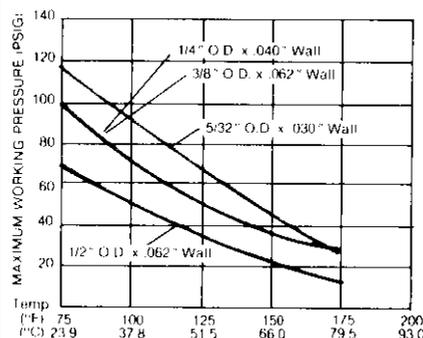
Size	Wall	Weight	Length	Part Number
5/32	.096	.030	0.57	1219-130X4 *
			250	1219-440X3 *
1/4	.170	.040	1.26	1219-440X4 *
			1,000	1219-440X5 *
3/8	.250	.062	2.90	1219-662X3 *
			500	1219-662X4 *
1/2	.375	.062	4.06	1219-862X3 *

\* Stock Item

## Physical Properties of "FR" Tubing

Melt Index (max.)	ASTM D 1238	dg/min.	1.0
Density, 23°C	ASTM D 792	g/c.c.	1.10
Tensile Strength	ASTM D 638	PSI	1900
Elongation (pull at 20" min.)	ASTM D 638	%	400
Flexural Modulus of Elasticity	ASTM D 790	PSI	33,000
Environmental Stress Crack Resistance	ASTM D 1693 see Note	% failures at 48 hrs.	0
Tube Strength(max.)	—	pounds	5/32" tube = 14 1/4" tube = 30 3/8" tube = 67 1/2" tube = 95
Minimum Bend Radius	—	inches	5/32" tube = 1/2 1/4" tube = 3/4 3/8" tube = 1-1/2 1/2" tube = 1-7/8
Water Absorption	ASTM D 570	%	.08
Maximum Service Temperature — Black	UL 94	°F	175
Flammability	UL 910	—	V-2 Classified/NFPA 90A
Polyethylene Classification	ASTM D 1248	—	Type I Class c category 4

**Dekoron 1219 "FR" Tubing**  
MAXIMUM RECOMMENDED WORKING  
PRESSURE VS. TEMPERATURE



## Color Designations For Striped "FR" Tubing

All Black	O	Yellow	D
White	A	Green	E
Red	B	Blue	F
Orange	C	Violet	G

Note: In addition to the standard stress crack test, a modified version of ASTM D 1693 to evaluate tubing quality is also performed. Sections of tubing are bent to induce severe stress in the tubing wall and then submerged in a 10% solution of Igepal (C0630). The samples and solution are placed in a controlled temperature environment at 50°C. Samples must exhibit no cracking or crazing throughout the duration of the test to be considered satisfactory for extended "se."