

FP-301VW Tubing

Flexible Polyolefin

Data Sheet

Product Description

3M™ FP-301VW Tubing has the same outstanding balance of electrical, physical and chemical properties as FP-301 Tubing and is specially engineered for superior flame resistance.

FP-301VW Tubing meets MIL-DTL-23053/5, Class 3 requirements. It is UL Recognized and CSACertified at 600 volts @ 125°C (ULFile Nos. E-39100, VW-1 and E-69751; CSANo. 38227, OFT).

FP-301VW Tubing is rated for continuous operation from -55° C (-67° F) to 135° C (275° F) and withstands elevated temperatures to 300° C (572° F) for brief periods. Minimum shrink temperature for all FP-301VWTubing is 100° C (212° F).

Typical Applications

FP-301VW Tubing is ideal for fireresistant coverings of components and flammable wire assemblies.

Shrink Ratio

FP-301VW Tubing has a 2:1 shrink ratio. When freely recovered, the tubing will shrink to 50% of its as-supplied internal diameter. The recovered wall thickness of the tubing is proportional to the degree of recovery. High expansion ratios are available subject to factory quotation.

Standard Colors

FP-301VW (flame retardant)—black, white, red, blue and yellow.

Standard Packaging

Four-foot lengths or large spools. Cut pieces available subject to factory quotation.

Ordering Information

Order FP-301VW by product name, size equivalent to expanded inside diameter, package type and color. Always order the largest size that will shrink snugly over the item to be covered.

Example: FP-301VW, 1/4", 4 ft., white.

Standard Sizes and Dimensions

Ordering Size		nded I.D. nimum)		Recovered I.D. (Maximum)		Recovered Wall Thickness (Nominal)	
	in.	(mm)	in.	(mm)	in.	(mm)	
3/64	.046	(1,17)	.023	(0,58)	.016	(0,41)	
1/16	.063	(1,60)	.031	(0,79)	.017	(0,43)	
3/32	.093	(2,36)	.046	(1,17)	.020	(0,51)	
1/8	.125	(3,18)	.062	(1,57)	.020	(0,51)	
3/16	.187	(4,75)	.093	(2,36)	.020	(0,51)	
1/4	.250	(6,35)	.125	(3,18)	.025	(0,64)	
3/8	.375	(9,53)	.187	(4,75)	.025	(0,64)	
1/2	.500	(12,70)	.250	(6,35)	.025	(0,64)	
3/4	.750	(19,05)	.375	(9,53)	.030	(0,76)	
1	1.000	(25,40)	.500	(12,70)	.035	(0,89)	
1-1/2	1.500	(38,10)	.750	(19,05)	.040	(1,02)	
2	2.000	(50,80)	1.000	(25,40)	.045	(1,14)	
3	3.000	(76,20)	1.500	(38,10)	.050	(1,27)	
4	4.000	(101,60)	2.000	(50,80)	.055	(1,40)	

Typical Properties

Applicable Specification MIL-DTL-23053/5, Class 3; ULFile E-39100, VW-1, E-69751; CSALR38227, OFT

,	,		
Physical Tensile Strength Ultimate Elongation Longitudinal Change	2400 PSI 400% +1, -10%	Electrical Dielectric Strength Volume Resistivity	
(4 hrs. @ 250°C) pass Low Temperature Flex (4 hrs. @ –55°C) Flammability Sel	•	Chemical Corrosive Effect Solvent Resistance Tensile Strength Dielectric Strength Water Absorption Fungus Resistance	1000 PSI 400 V/mil 0.2%

Technical information provided consists of typical product data and should not be used for specification purposes. Unless otherwise noted, all tests are performed at room temperature.