



Kynar® Tubing

Modified Polyvinylidene Fluoride

Data Sheet

Product Description

3M™ Kynar is a cross-linked, thin-walled, heat-shrinkable tubing offering a high degree of mechanical strength and high-temperature resistance. Fabricated from polyvinylidene fluoride, the tubing has outstanding abrasion resistance and cut-through properties in combination with high dielectric strength. It is inherently flame retardant, semi-rigid and highly resistant to most industrial fuels, chemicals and solvents. When heated in excess of 175°C (347°F), Kynar Tubing rapidly shrinks to a skintight fit. Kynar Tubing is rated for continuous operation from -55°C (-67°F) to 175°C (347°F).

Typical Applications

Kynar Tubing is recommended for shrink-fit protection and strain relief of wires, solder joints, terminals and connections. Suggested applications include automotive wiring, jackets, fuse coverings and military wire markers. Because the tubing is transparent, it allows see-through inspection and identification and is ideal for use as a jacketing for components such as resistors and capacitors. The tubing is readily marked by hot-stamp and print-wheel equipment.

Standard Color

Clear. Colors available subject to factory quotation.

Standard Packaging

Four-foot lengths.

Ordering Information

Order Kynar Tubing by product name, size equivalent to the expanded inside diameter, package type and color. Always order the largest size that will shrink snugly over the item to be covered. Example: Kynar, 3/8", 4 ft., clear.

Shrink Ratio

Kynar 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 is proportional to the degree of recovery.

Standard Sizes and Dimensions

Ordering Size	Expanded I.D. (Minimum)		Recovered I.D. (Maximum)		Recovered Wall Thickness (Nominal)	
	in.	(mm)	in.	(mm)	in.	(mm)
3/64	.046	(1,17)	.023	(0,58)	.010	(0,25)
1/16	.063	(1,60)	.031	(0,79)	.010	(0,25)
3/32	.093	(2,36)	.046	(1,17)	.010	(0,25)
1/8	.125	(3,18)	.062	(1,57)	.010	(0,25)
3/16	.187	(4,75)	.093	(2,36)	.010	(0,25)
1/4	.250	(6,35)	.125	(3,18)	.012	(0,30)
3/8	.375	(9,53)	.187	(4,75)	.012	(0,30)
1/2	.500	(12,70)	.250	(6,35)	.012	(0,30)
5/8	.625	(15,88)	.313	(7,94)	.014	(0,36)
3/4	.750	(19,05)	.375	(9,53)	.017	(0,43)
1	1.000	(25,40)	.500	(12,70)	.019	(0,48)
1-1/2	1.500	(38,10)	.750	(19,05)	.020	(0,51)
2	2.000	(50,80)	1.000	(25,40)	.022	(0,56)

Typical Properties

Applicable Specification

MIL-DTL-23053/8, MIL-DTL-23053/18, Class 1; AMS-3632; UL File E-39100, VW-1, E-69751; CSA LR 38227, OFT

Physical

Tensile Strength 5500 PSI
 Ultimate Elongation 350%
 Longitudinal Change +1,-10%
 Specific Gravity 1.7
 Operating Temperature -55°C to +175°C
 Shrink Temperature 175°C (347°F) (Min.)
 Low Temperature Flexibility (4 hrs. @ -55°C) No cracking
 Flammability Self-extinguish meets UL224
 Secant Modulus (2%) 123,000PSI

Electrical

Dielectric Strength 900 V/mil
 Volume Resistivity 10¹⁴ ohm-cm

Chemical

Corrosion Resistance Non-corrosive
 Fuel & Oil Resistance Excellent
 Solvent Resistance Excellent
 Abrasion Resistance Excellent
 Acids & Alkalis Resistance Excellent

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.

Limited Warranty – 3M expressly warrants that for a period of ninety days from the date of purchase, 3M static control products will be free of defects in materials (parts) and workmanship (labor). Defects occurring during the warranty period will be repaired or products will be replaced at 3M's option and expense, if 3M receives notice during the warranty period. Defective products must be returned to 3M with proof of purchase date.

Warranty Exclusions – THE FOREGOING EXPRESS WARRANTY IS MADE IN LIEU OF ALL OTHER PRODUCT WARRANTIES, EXPRESS AND IMPLIED, INCLUDING FITNESS AND MERCHANTABILITY. The express warranty will not apply to defects or damage due to accidents, neglect, misuse, alterations, operator error, or failure to properly maintain, clean, or repair products.

Limit of Liability – In no event will 3M or Seller be responsible or liable for special, incidental, or consequential losses or damages, whether based in tort or contract. Fulfillment of 3M's warranty obligations will be Customer's exclusive remedy and 3M's and Seller's limit of liability for any breach of warranty or otherwise.

For your nearest distributor or to order, call 1-800-328-1368

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