VTN-200 Tubing

Modified Fluoroelastomer

Data Sheet

Product Description

3M™ VTN-200 heat-shrinkable tubing is highly abrasion and cut-through resistant and can withstand a wide variety of fuels, lubricants, acids and highly corrosive fluids at temperatures up to 200°C. In addition to its high continuous operating temperature and chemical-resistance properties, this tubing is very flexible and is easily marked by hot-stamp or print-wheel methods. When heated in excess of 175°C (347°F), VTN-200 rapidly shrinks to a skintight fit. VTN-200 is rated for continuous operation from –55°C (–67°F) to 200°C (392°F).

Typical Applications

Because of its outstanding high-temperature fluid performance, VTN-200 Tubing is often used to protect wiring and component covers in aircraft/aerospace applications including electronic control systems and hydraulic fluid transport mechanisms and in chemical plants.

Shrink Ratio

VTN-200 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 Color

Black.

Standard Packaging

Spools.

Ordering Information

Order VTN-200 Tubing by product name, size equivalent to the expanded inside diameter, package type and color. Always order the largest size that will shink snugly over the component to be covered.
Example: VTN-200, 3/16," black, spools.

Standard Sizes and Dimensions

Ordering Size	Expanded I.D. (Minimum)		Recovered I.D. (Maximum)		Recovered Wall Thickness (Nominal)	
	in.	(mm)	in.	(mm)	in.	(mm)
1/8	.125	(3,18)	.062	(1,57)	.030	(0,76)
3/16	.187	(4,75)	.093	(2,36)	.035	(0,89)
1/4	.250	(6,35)	.125	(3,18)	.035	(0,89)
3/8	.375	(9,53)	.187	(4,75)	.035	(0,89)
1/2	.500	(12,70)	.250	(6,35)	.035	(0,89)
5/8	.625	(15,88)	.312	(7,92)	.042	(1,07)
3/4	.750	(19,05)	.375	(9,53)	.042	(1,07)
7/8	.875	(22,23)	.438	(11,11)	.049	(1,24)
1	1.000	(25,40)	.500	(12,70)	.049	(1,24)
1-1/4	1.250	(31,75)	.625	(15,88)	.055	(1,40)
1-1/2	1.500	(38,10)	.750	(19,05)	.055	(1,40)
2	2.000	(50,80)	1.000	(25,40)	.065	(1,65)

Typical Properties

Applicable Specification
MIL-DTL-23053/13; MIL-R-46846, Type III, Class 1

Physical

Tensile Strength	2400 PSI
Ultimate Elongation	450%
Longitudinal Change	+1,-10%
Specific Gravity	1.7
Operating Temperature Range	–55°C to +200°C
Shrink Temperature (Min.)	175°C (347°F)
Low Temperature Flexibility (4 hrs. @ –55°C)	No cracking
Flammability	Self-extinguish

Electrical

Dielectric Strength	500 V/mil
Volume Resistivity	10^{12} 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 WARRANTYIS MADE IN LIEU OF ALLOTHER PRODUCT WARRANTIES, EXPRESS AND IMPLIED, INCLUDING FITNESS AND MERCHANTIBILITY. 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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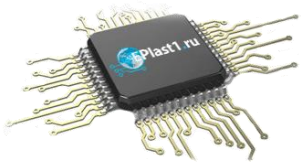
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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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