
ALPHA WIRE COMPANY
CUSTOMER PRODUCT SPECIFICATION

Part Number: FIT-700
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Issue: 3
Issue Date: 08/2/2004
Effective Date: 08/2/2004

-NOTE: ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED-
- REQUIREMENTS ARE FOR BOTH TUBING & SEALANT UNLESS OTHERWISE SPECIFIED -

CONSTRUCTION

Product Heavy Wall Heat Shrinkable Tubing of Irradiated Polyolefin with Thermoplastic Bonding Layer.

PHYSICAL PROPERTIES

Shrink ratio	3:1, Approx.
Shrink Temperature (Full Recovery)	121°C, Nom.
Appearance	Homogeneous Surface, Free From Pinholes, Defects, Cracks, And Inclusions
Dimensions	See Table 1
Color (Tubing)	Black
Color (Sealant)	Natural
Sealant Performance	The sealant material shall effectively seal the enclosed area against moisture.
Temperature Rating, Continuous	-55°C to + 90°C
Sealant Softening Point (ASTM E28)	92°C± 5°C
Low Temperature Flex (ASTM D2671)	Pass @ 4 Hrs. @ -55C)
Tensile Strength	Sizes 21 thru 24: 2100 psi, Min. Sizes 25 thru 26: 2250 psi, Min.
Ultimate Elongation	Sizes 21 thru 24: 600 psi, Min. Sizes 25 thru 26: 350 psi, Min.

ELECTRICAL PROPERTIES

Dielectric Strength (ASTMD149)	Sizes 21 thru 24: 500 V/mil, Min. Sizes 25 thru 26: 350 V/mil, Min.
Dielectric Constant (Tubing)	2.90, Nominal
Volume Resistivity (ASTM D257)	Sizes 21 thru 24: 10 ¹⁶ Ohm-cm Sizes 25 thru 26: 10 ¹⁵ Ohm-cm
Volume Resistivity (Sealant)	10 ¹⁴ Ohm-Cm, Min.

FLAMMABILITY

Flammability	Not Flame Rated
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CHEMICAL PROPERTIES

Specific Gravity (ASTM D792)	1.09
Water Absorption (ASTM D570)	0.1%, Max.
Water Absorption (Sealant)	0.1% Max
Water Penetration (ASTMD706)	No Penetration @ 236 hrs., Continuous Immersion
Corrosion Resistance (ASTM D2671)	Pass
Fungus Resistance (ASTM G-21)	Pass
Color Stability (AMS-DTL-23053/15)	Pass
Fluid Resistance (AMS-DTL-23053/15)	Pass @ 24 Hours @ Room Temperature for: MIL-A-8243 Deicing Fluid MIL-H-5606 Hydraulic Fluid MIL-T-5624 JP-8 MIL-L-7808 Lubricating Oil MIL-L-23699 Lubricating Oil Immersion in 5% NaCl Solution
Retained Tensile/ Elongation After Immersion In Fluids (AMS-DTL-23053/15)	750 psi/100% Min.

OTHER SPECIFICATIONS

Military

ASM-DTL-23053, As Defined Here-In

TABLE 1: DIMENSIONAL INFORMATION			
Alpha Part Number	Supplied ID, Min.	Recovered ID, Max.	Recovered Wall Thickness, Nom. ¹
FIT-700-21	0.75	0.24	0.09
FIT-700-22	1.10	0.35	0.12
FIT-700-23	1.50	0.47	0.16
FIT-700-24	2.00	0.63	0.16
FIT-700-25	3.00	1.25	0.16
FIT-700-26	4.50	1.75	0.16

TABLE 3: CUT LENGTH TOLERANCE INFORMATION		
FIT Tubing Length, Inches	FIT Tubing Diameter, Inches	
	1.7 – 2.75	3.5 – 6.7
To 12-Inches	±1/8	±1/4

¹ Nominal recovered wall thickness is for the uncoated material; add 0.05-inches to include coating thickness.