# Customer Specification

# PART NO. FIT-321-1/4

# Construction

| | |
|---|---|
| 1) Tubing Type | Dual Wall Heat Shrinkable Tubing |
| 2) Tubing Material | Dual Wall Flexible PO w/Thick Wall Adhesive |
| 3) Minimum Supplied ID(In) | 0.240 |
| 4) Maximum Recovered ID (In) | 0.080 |
| 5) Nominal Recovered Wall Thickness(In) | 0.040 |
| 6) Nominal Recovered Melt Wall (In) | 0.020 |
| 7) Color(s) | BLACK |
| | |

# Applicable Specifications

| | | |
|---|---|---|
| 1) UL | Standard 224 | 125°C / 600 $V_{RMS}$ |
| | All Tubing Flame Test | |
| 2) CSA International | Standard 198 | |
| 3) Other | AMS-DTL-23053/4, Class 3 | |
| | | |

# Environmental

| 1) EU Directive 2011/65/EU(RoHS2): | |
|---|---|
| | All materials used in the manufacture of this part are in compliance with European Directive 2011/65/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. Consult Alpha Wire's web site for RoHS C of C. |
| 2) California Proposition 65: | The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65. |
| | |

# Properties

| Physical & Mechanical Properties | | |
|---|---|---|
| 1) Temperature Range | -55 to 125°C | |
| 2) Shrink Ratio | Approximately 3:1 | |
| 3) Full Recovery Temperature | 110°C | |
| 4) Minimum Shrink Temperature | 110°C | |
| 5) Tensile Strength | 1500psi, Min | ASTM D638 |
| 6) Elongation | 250%, Min | ASTM D638 |
| 7) Cold Impact(-55°C) | no cracking | ASTM D746 |
| 8) Heat Shock(250°C,4hrs) | no cracking | AMS-DTL-23053 |
| 9) Secant Modulus | $2.5x10^{4}$ psi, Min | ASTM D882 |
| 10) Longitudinal Change | +1%/-15% | AMS-DTL-23053 |
| 11) Shelf Life | 3 Years @ 18 to 35°C | |
| **Electrical Properties** | | |
| 1) Dielectric Strength | 300 V/mil, Min | ASTM D876 |
| 2) Volume Resistivity | $1x10^{12}$ ohm-cm, Min | ASTM D876 |
| **Chemical Properties** | | |
| 1) Water Absorption | 1.00%, Max | ASTM D570 |
| 2) Corrosion(0°C,16hrs) | no corrosion | AMS-DTL-23053 |
| 3) Fluid Resistance(23°C,24 Hrs) | 900 PSI, Min | AMS-DTL-23053 |
| 4) Fungus Resistance | Pass | AMS-DTL-23053 |
| 5) Halogen Free | No | |
| 6) Lead Free | Yes | |

# Other

| Packaging |
| --- |
| 25X4 FT, 20X6 IN |

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# EU/UK/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: FIT-321-1/4

FIT-321-1/4, RoHS-Compliant Commencing With 12/1/2004 Production

Note: all colors and put-ups

This document certifies that the Alpha part number cited above, including all packaging materials, is manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive (commonly known as RoHS 2), with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. This certification extends to amending Directive 2015/863/EU which expanded the list of restricted substances to 10 items (commonly known as RoHS 3). This product also complies with UK - RoHS. The reader is referred to these Directives for the specific definitions and extents of the Directives. **No Exemptions are required for RoHS Compliance on this item**. Additionally, Alpha certifies that the listed part number is in compliance with China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2014. This product is also in compliance with China RoHS 2 per GB/T 26572-2011.

| **Substance** | **Maximum Control Value** |
|---|---|
| Lead | 0.1% by weight (1000 ppm) |
| Mercury | 0.1% by weight (1000 ppm) |
| Cadmium | 0.01% by weight (100 ppm) |
| Hexavalent Chromium | 0.1% by weight (1000 ppm ) |
| Polybrominated Biphenyls (PBB) | 0.1% by weight (1000 ppm) |
| Polybrominated Diphenyl Ethers (PBDE) , | |
| Including Deca-BDE | 0.1% by weight (1000 ppm) |
| Bis(2-ethylhexyl) phthalate (DEHP) | 0.1% by weight (1000 ppm) |
| Butyl benzyl phthalate (BBP) | 0.1% by weight (1000 ppm) |
| Dibutyl phthalate (DBP) | 0.1% by weight (1000 ppm) |
| Diisobutyl phthalate (DIBP) | 0.1% by weight (1000 ppm) |

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Authorized Signatory for the Alpha Wire:



Dave Watson, Director of Engineering 11/6/2026

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