

# Customer Specification

## PART NO. FIT-350-3/16

### Construction

|   |                         |
|---|-------------------------|
| 1) Tubing Type                          | Heat Shrinkable Tubing  |
| 2) Tubing Material                      | Irradiated PVDF (Kynar) |
| 3) Minimum Supplied ID(In)              | 0.187                   |
| 4) Maximum Recovered ID (In)            | 0.093                   |
| 5) Nominal Recovered Wall Thickness(In) | 0.010                   |
| 6) Color(s)                             | CLEAR                   |

### Applicable Specifications

|          |                 |                              |
|----------|-----------------|------------------------------|
| 1) UL    | Standard 224    | 150°C / 600 V <sub>RMS</sub> |
|          | VW-1            |                              |
| 2) Other | AMS-DTL-23053/8 |                              |

### Environmental

|                                     |  |
|-------------------------------------|--|
| 1) EU Directive 2002/95/EC(RoHS):   | All materials used in the manufacture of this part are in compliance with EU Directive 2002/95/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. Consult Alpha Wire's web site for compliance Date of Manufacture. |
| 2) REACH Regulation (EC 1907/2006): | This product does not contain any of the 16 substances listed on the European Union's REACH Substance of Very High Concern (SVHC) candidate list in excess of 0.1% mass of the item.   |
| 3) 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 175°C                   |               |
| 2) Shrink Ratio                   | Approximately 2:1              |               |
| 3) Full Recovery Temperature      | 175°C                          |               |
| 4) Tensile Strength               | 5000psi, Min                   | ASTM D638     |
| 5) Elongation                     | 150%, Min                      | ASTM D638     |
| 6) Low Temperature Flex(-55°C)    | no cracking                    | AMS-DTL-23053 |
| 7) Heat Resistance(250°C,168hrs)  | 100% Elongation, Min           | ASTM D638     |
| 8) Heat Shock(300°C,4hrs)         | no cracking                    | AMS-DTL-23053 |
| 9) Secant Modulus                 | 1x10 <sup>5</sup> psi, Min     | ASTM D882     |
| 10) Longitudinal Change           | +/-10%                         | AMS-DTL-23053 |
| 11) Specific Gravity              | 1.80, Max                      | ASTM D792     |
| 12) Deformation(125°C,1 hr)       | 50% Max                        | UL 224        |
| 13) Shelf Life                    | 5 Years @ 18 to 35°C           |               |
| Electrical Properties             |                                |               |
| 1) Dielectric Strength            | 800 V/mil, Min                 | ASTM D876     |
| 2) Volume Resistivity             | 1x10 <sup>13</sup> ohm-cm, Min | ASTM D876     |
| Chemical Properties               |                                |               |
| 1) Water Absorption               | 0.50%, Max                     | ASTM D570     |
| 2) Copper stability(250°C,168hrs) | 70% Elongation, Min            | UL 224        |
| 3) Corrosion(250°C,16hrs)         | no corrosion                   | AMS-DTL-23053 |
| 4) Fluid Resistance(23°C,24 Hrs)  | 5000 PSI, Min                  | AMS-DTL-23053 |
| 5) Fungus Resistance              | Pass                           | AMS-DTL-23053 |
| 6) Vacuum Outgassing - CVCm       | 0.03%, Max                     | ASTM E595     |
| 7) Vacuum Outgassing - TML        | 0.11%, Max                     | ASTM E595     |
| 8) Halogen Free                   | No                             |               |
| 9) Lead Free                      | Yes                            |               |

## Other

|           |
|-----------|
| Packaging |
|-----------|

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## EU/China ROHS CERTIFICATE OF COMPLIANCE

To Whom It May Concern:

Alpha Wire Part Number: FIT-350-3/16

FIT-350-3/16, RoHS-Compliant Commencing With 12/1/2004 Production

This document certifies that the Alpha part number cited above are manufactured in accordance with Directive 2011/65/EU of the European Parliament, better known as the RoHS Directive, with regards to restrictions of the use of certain hazardous substances used in the manufacture of electrical and electronic equipment. The reader is referred to these Directives for the specific definitions and extents of these Directives. **No Exemptions are required for RoHS Compliance on this item.** Additionally, Alpha certifies that the listed part number is in compliance China RoHS "Marking for Control of Pollution by Electronic Information Products" standard SJ/T 11364-2006.

| <b>Substance</b>  | <b>Maximum Control Value</b> |
|---|------------------------------|
| 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) ,<br>Including Deca-BDE | 0.1% by weight (1000 ppm)    |

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Authorized Signatory for the Alpha Wire Company:

Dave Watson, Director of Engineering & QA

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