

**ALPHA WIRE**  
**CUSTOMER PRODUCT SPECIFICATION**

**Part Number: GRP110NF**  
**Page 1 of 2 Pages**

**Issue: 6**  
**Issue Date: 2/21/2013**  
**Effective Date: 3/8/2013**

**A. Construction**

- |                    |                                    |
|--------------------|------------------------------------|
| 1) Tubing Type     | Expandable Sleeving                |
| 2) Tubing Material | Braided Polyethylene Terephthalate |
| 3) Color(s)        | BLACK OR NATURAL                   |

Part Number	Minimum Supplied ID (In)	Maximum Expanded ID (In)	Nominal Wall Thickness +/- 0.005 (In)	Number of Carriers	Number of Yarns	Total Number of Monofilaments
GRP-110NF18	0.125	0.250	0.024	32	3	96
GRP-110NF14	0.156	0.438	0.024	40	3	120
GRP-110NF12	0.250	0.750	0.024	64	3	192
GRP-110NF34	0.625	1.000	0.024	80	3	240
GRP-110NF114	1.000	1.500	0.024	120	3	360
GRP-110NF112	1.250	2.000	0.024	120	4	480

**B. Applicable Specifications**

- |                      |           |
|----------------------|-----------|
| 1) UL                | UZKX2     |
| 2) CSA International | 5836 01   |
| 3) Military          | MIL-I-631 |

**C. Environmental Compliance**

- 1) RoHS Directive (2011/65/EU):  
All materials used in the manufacture of this part meet the requirements of European Directive 2011/65/EU regarding the restriction of use of certain hazardous substances in electrical and electronic equipment. No Exemptions are required for RoHS Compliance on this item. Consult Alpha Wire's web site for [RoHS C of C](#).
- 2) REACH Regulation (EC 1907/2006):  
This product does not contain Substances of Very High Concern (SVHC) listed on the European Union's REACH candidate list in excess of 0.1% mass of the item. For up-to-date information, please see [Alpha's REACH SVHC Declaration](#).
- 3) California Proposition 65: The outer surface materials used in the manufacture of this part meet the requirements of California Proposition 65.

**D. Physical & Mechanical Properties**

- |                      |               |           |
|----------------------|---------------|-----------|
| 1) Temperature Range | -75 to 125°C  |           |
| 2) Tensile Strength  | 85000psi, Min | ASTM D638 |

**E. Electrical Properties**

**F. Chemical Properties**

- |                         |              |               |
|-------------------------|--------------|---------------|
| 1) Water Absorption     | 0.08%, Max   | ASTM D570     |
| 2) Corrosion(0°C,16hrs) | no corrosion | AMS-DTL-23053 |
| 3) Fungus Resistance    | Pass         | AMS-DTL-23053 |
| 4) Halogen Free         | Yes          |               |
| 5) Lead Free            | Yes          |               |

**G. Other**

- 1) Packaging
- a) GRP-110NF18  
500 FT, 100 FT
  - b) GRP-110NF14  
500 FT, 100 FT
  - c) GRP-110NF12  
500 FT, 100 FT
  - d) GRP-110NF34  
500 FT, 100 FT

Although Alpha Wire Company ("Alpha") makes every reasonable effort to ensure their accuracy at the time of publication, information and specifications described herein are subject to errors or omissions and to changes without notice, and the listing of such information and specifications does not ensure product availability.

Alpha provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Alpha be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary) whatsoever, even if Alpha has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

**ALPHA WIRE**  
**CUSTOMER PRODUCT SPECIFICATION**

**Part Number: GRP110NF**  
**Page 2 of 2 Pages**

**Issue: 6**  
**Issue Date: 2/21/2013**  
**Effective Date: 3/8/2013**

- e) GRP-110NF114  
250 FT, 50 FT
- f) GRP-110NF112  
250 FT, 50 FT

Although Alpha Wire Company ("Alpha") makes every reasonable effort to ensure their accuracy at the time of publication, information and specifications described herein are subject to errors or omissions and to changes without notice, and the listing of such information and specifications does not ensure product availability.

Alpha provides the information and specifications herein on an "AS IS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Alpha be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary) whatsoever, even if Alpha has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.