

**ALPHA WIRE
CUSTOMER PRODUCT SPECIFICATION**

Part Number: ZIPGRP	Issue: 4
Page 1 of 1 Pages	Issue Date: 3/1/2011
	Effective Date: 3/1/2011

A. Construction

- | | |
|--------------------|--|
| 1) Tubing Type | Expandable Sleeving |
| 2) Tubing Material | Braided PET with Hook and Loop Closure |
| 3) Color(s) | BLACK WITH WHITE TRACER THREAD |

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
ZIP-GRP-7/8	0.500	2.375	0.025	88	4	220
ZIP-GRP-1-1/2	1.500	3.500	0.025	105	4	420
ZIP-GRP-2	2.000	4.500	0.025	137	4	548

B. Applicable Specifications

- | | |
|----------------------|---------------|
| 1) UL | VW-1
UZKX2 |
| 2) CSA International | 5836 01 |

C. Environmental Compliance

- 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 substances listed on the European Union REACH Substance of Very High Concern (SVHC) candidate list, dated 30 March 2010, in excess of a concentration of 0.1% weight/weight.
- 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 | -70 to 125°C | |
| 2) Tensile Strength | 85000psi, Min | ASTM D638 |
| 3) Specific Gravity | 1.38, Max | ASTM D792 |

E. Electrical Properties

F. Chemical Properties

- | | | |
|-------------------------|--------------|---------------|
| 1) Water Absorption | 0.15%, 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) ZIP-GRP-7/8
50 FT, 25 FT
 - b) ZIP-GRP-1-1/2
50 FT, 25 FT
 - c) ZIP-GRP-2
50 FT, 25 FT
- 2) Notes:
 - a) Melt temperature: 250C (482F)
 - b) Monofilament thickness: .010 in
 - c) recommended cutting method: Hot knife

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.