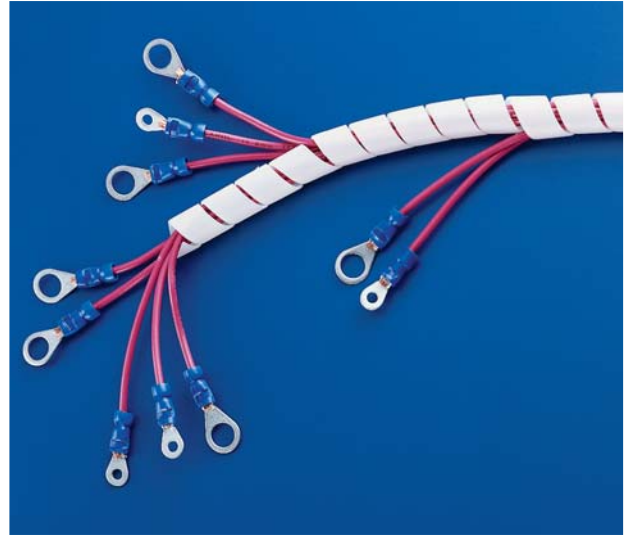


## Spiralwrap

Spiralwrap protective sheathing allows flexible routing and lead-out of cables. The inner edges are beveled to prevent damage to cables. U.L. Recognized Spiralwrap is reusable and resistant to most chemicals. Natural and black are standard colors (see material descriptions). Colors may be available dependent upon volume requirements. Contact HellermannTyton for more information.



### Application

**Control Cabinet Doors:** Protects cable from friction when one end of the cable is fastened within the panel and the other is fastened to the panel door. Allows flexibility and prevents wire chafing when door is opened and closed.

**Robotics:** Protects hoses and wires during movement.

**Pneumatic Hoses:** Protects hoses from abrasion while on semi-trucks and other vehicles.

**Spark Plug Wires:** Lengthens the life of spark plug wires by reducing abrasion to wire insulation.

### Installation

Spiralwrap can be installed in two basic ways:

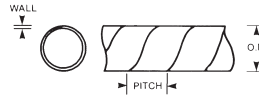
In a gapped installation, Spiralwrap is wrapped with space between the sheathing. This accommodates wire breakouts and also keeps the wire bundle flexible.

In a butted installation, Spiralwrap is wrapped so the sheathing completely insulates the wire bundle. This provides superior abrasion resistance and additional rigidity.

| Polyethylene (PE)      | Size |      |      |      |      |    |
|------------------------|------|------|------|------|------|----|
|                        | 1/8" | 1/4" | 3/8" | 1/2" | 3/4" | 1" |
| Color                  |      |      |      |      |      |    |
| Brown (1)              | X    | X    |      | X    |      |    |
| Red (2)                | X    |      | X    | X    | X    | X  |
| Orange (3)             | X    |      | X    |      |      |    |
| Yellow (4)             | X    | X    | X    | X    | X    | X  |
| Green (5)              | X    | X    | X    |      |      |    |
| Blue (6)               | X    | X    | X    | X    | X    | X  |
| Purple (7)             | X    |      | X    |      |      |    |
| Gray (8)               |      |      |      |      |      |    |
| White (10)             | X    | X    | X    | X    | X    | X  |
| Pink (15)              |      |      | X    |      |      |    |
| DG Orange (DG3)        | X    | X    | X    | X    | X    | X  |
| DG Yellow (DG4)        |      |      | X    |      |      |    |
| DG Green (DG5)         |      |      |      |      |      |    |
| Glow in the Dark (DG9) |      |      | X    |      |      |    |
| DG Pink (DG15)         |      | X    | X    |      |      |    |

All size/color combinations denoted with an "X" in the table above are available upon request. Contact HellermannTyton for pricing, part numbers, minimum order quantities and lead times. Additional size/color combinations may be available upon request. Contact your local HellermannTyton representative for pricing and minimums.

## Cable Management Products

Spiralwrap *continued*

File # E147924

| Product Selection                              |          |        |          |         |                |        |          |         |               |         |               |        |         |           |
|------------------------------------------------|----------|--------|----------|---------|----------------|--------|----------|---------|---------------|---------|---------------|--------|---------|-----------|
| Article No.                                    | Part No. | Type   | Ø D      |         | Wall Thickness |        | Pitch    |         | Min. Ø Bundle |         | Max. Ø Bundle |        | Color   | Pkg. Qty. |
|                                                |          |        | in. (mm) |         | in. (mm)       |        | in. (mm) |         | in. (mm)      |         | in. (mm)      |        |         |           |
| Natural Polyethylene (PE)                      |          |        |          |         |                |        |          |         |               |         |               |        |         |           |
| 161-05013                                      | 1NFP9C   | 1NFP   | .125"    | (3.18)  | .032"          | (.81)  | .187"    | (4.75)  | .0625"        | (1.60)  | .50"          | (12.7) | Natural | 100       |
| 161-05043                                      | 2NFP9C   | 2NFP   | .250"    | (6.35)  | .045"          | (1.14) | .375"    | (9.53)  | .1875"        | (4.75)  | 2"            | (50.8) | Natural | 100       |
| 161-05027                                      | 2.5NFP9C | 2.5NFP | .375"    | (9.53)  | .052"          | (1.32) | .438"    | (11.13) | .3125"        | (7.92)  | 3"            | (76.2) | Natural | 100       |
| 161-05055                                      | 3NFP9C   | 3NFP   | .5"      | (12.7)  | .062"          | (1.57) | .563"    | (14.3)  | .375"         | (9.52)  | 4"            | (102)  | Natural | 100       |
| 161-05075                                      | 4NFP9C   | 4NFP   | .750"    | (19.05) | .065"          | (1.65) | .750"    | (19.05) | .750"         | (19.10) | 5"            | (127)  | Natural | 100       |
| 161-05080                                      | 5NFP9C   | 5NFP   | 1"       | (25.4)  | .095"          | (2.41) | 1"       | (25.4)  | 1"            | (25.4)  | 7"            | (178)  | Natural | 100       |
| Black Polyethylene (PE)                        |          |        |          |         |                |        |          |         |               |         |               |        |         |           |
| 161-05004                                      | 1NFP0C   | 1NFP   | .125"    | (3.18)  | .032"          | (.81)  | .187"    | (4.75)  | .0625"        | (1.60)  | .50"          | (12.7) | Black   | 100       |
| 161-05036                                      | 2NFP0C   | 2NFP   | .250"    | (6.35)  | .045"          | (1.14) | .375"    | (9.53)  | .1875"        | (4.75)  | 2"            | (50.8) | Black   | 100       |
| 161-05024                                      | 2.5NFP0C | 2.5NFP | .375"    | (9.53)  | .052"          | (1.32) | .438"    | (11.13) | .3125"        | (7.92)  | 3"            | (76.2) | Black   | 100       |
| 161-05052                                      | 3NFP0C   | 3NFP   | .5"      | (12.7)  | .062"          | (1.57) | .5"      | (12.7)  | .375"         | (9.52)  | 4"            | (102)  | Black   | 100       |
| 161-05074                                      | 4NFP0C   | 4NFP   | .750"    | (19.05) | .065"          | (1.65) | .750"    | (19.05) | .750"         | (19.10) | 5"            | (127)  | Black   | 100       |
| 161-05079                                      | 5NFP0C   | 5NFP   | 1"       | (25.4)  | .095"          | (2.41) | 1"       | (25.4)  | 1"            | (25.4)  | 7"            | (178)  | Black   | 100       |
| Natural Polyethylene (PE), flame-retardant     |          |        |          |         |                |        |          |         |               |         |               |        |         |           |
| 161-05001                                      | 1FRP9C   | 1FRP   | .125"    | (3.18)  | .032"          | (.81)  | .187"    | (4.75)  | .0625"        | (1.60)  | .50"          | (12.7) | Natural | 100       |
| 161-05030                                      | 2FRP9C   | 2FRP   | .250"    | (6.35)  | .045"          | (1.14) | .375"    | (9.53)  | .1875"        | (4.75)  | 2"            | (50.8) | Natural | 100       |
| 161-05017                                      | 2.5FRP9C | 2.5FRP | .375"    | (9.53)  | .052"          | (1.32) | .438"    | (11.13) | .3125"        | (7.92)  | 3"            | (76.2) | Natural | 100       |
| 161-05049                                      | 3FRP9C   | 3FRP   | .5"      | (12.7)  | .062"          | (1.57) | .563"    | (14.3)  | .375"         | (9.52)  | 4"            | (102)  | Natural | 100       |
| 161-05058                                      | 4FRP9C   | 4FRP   | .750"    | (19.05) | .065"          | (1.65) | .750"    | (19.05) | .750"         | (19.10) | 5"            | (127)  | Natural | 100       |
| 161-05077                                      | 5FRP9C   | 5FRP   | 1"       | (25.4)  | .095"          | (2.41) | 1"       | (25.4)  | 1"            | (25.4)  | 7"            | (178)  | Natural | 100       |
| Black Polyethylene (PE), flame-retardant       |          |        |          |         |                |        |          |         |               |         |               |        |         |           |
| 161-05000                                      | 1FRP0C   | 1FRP   | .125"    | (3.18)  | .032"          | (.81)  | .187"    | (4.75)  | .0625"        | (1.60)  | .50"          | (12.7) | Black   | 100       |
| 161-05029                                      | 2FRP0C   | 2FRP   | .250"    | (6.35)  | .045"          | (1.14) | .375"    | (9.53)  | .1875"        | (4.75)  | 2"            | (50.8) | Black   | 100       |
| 161-05016                                      | 2.5FRP0C | 2.5FRP | .375"    | (9.53)  | .052"          | (1.32) | .438"    | (11.13) | .3125"        | (7.92)  | 3"            | (76.2) | Black   | 100       |
| 161-05048                                      | 3FRP0C   | 3FRP   | .5"      | (12.7)  | .062"          | (1.57) | .563"    | (14.3)  | .375"         | (9.52)  | 4"            | (102)  | Black   | 100       |
| 161-05057                                      | 4FRP0C   | 4FRP   | .750"    | (19.05) | .065"          | (1.65) | .750"    | (19.05) | .750"         | (19.10) | 5"            | (127)  | Black   | 100       |
| 161-05084                                      | 5FRP0C   | 5FRP   | 1"       | (25.4)  | .095"          | (2.41) | 1"       | (25.4)  | 1"            | (25.4)  | 7"            | (178)  | Black   | 100       |
| Natural Polyamide 6 (PA6)                      |          |        |          |         |                |        |          |         |               |         |               |        |         |           |
| 161-05003                                      | 1N9C     | 1N     | .125"    | (3.18)  | .015"          | (.38)  | .187"    | (4.75)  | .0625"        | (1.60)  | .50"          | (12.7) | Natural | 100       |
| 161-05034                                      | 2N9C     | 2N     | .250"    | (6.35)  | .0250"         | (.64)  | .375"    | (9.53)  | .1875"        | (4.75)  | 2"            | (50.8) | Natural | 100       |
| 161-05019                                      | 2.5N9C   | 2.5N   | .375"    | (9.53)  | .035"          | (.89)  | .438"    | (11.13) | .3125"        | (7.92)  | 3"            | (76.2) | Natural | 100       |
| 161-05051                                      | 3N9C     | 3N     | .5"      | (12.7)  | .035"          | (.89)  | .500"    | (12.7)  | .375"         | (9.52)  | 4"            | (102)  | Natural | 100       |
| 161-05072                                      | 4N9C     | 4N     | .750"    | (19.05) | .032"          | (.81)  | .750"    | (19.05) | .5"           | (12.7)  | 5"            | (127)  | Natural | 100       |
| 161-05085                                      | 5N9C     | 5N     | 1"       | (25.4)  | .032"          | (.81)  | 1"       | (25.4)  | 1"            | (25.4)  | 7"            | (178)  | Natural | 100       |
| Black Polyamide 6 (PA6)                        |          |        |          |         |                |        |          |         |               |         |               |        |         |           |
| 161-05002                                      | 1N0C     | 1N     | .125"    | (3.18)  | .015"          | (.38)  | .187"    | (4.75)  | .0625"        | (1.60)  | .50"          | (12.7) | Black   | 100       |
| 161-05032                                      | 2N0C     | 2N     | .250"    | (6.35)  | .025"          | (.64)  | .375"    | (9.53)  | .1875"        | (4.75)  | 2"            | (50.8) | Black   | 100       |
| 161-05018                                      | 2.5N0C   | 2.5N   | .375"    | (9.53)  | .035"          | (.89)  | .438"    | (11.13) | .3125"        | (7.92)  | 3"            | (76.2) | Black   | 100       |
| 161-05050                                      | 3N0C     | 3N     | .5"      | (12.7)  | .035"          | (.89)  | .50"     | (12.7)  | .375"         | (9.52)  | 4"            | (102)  | Black   | 100       |
| 161-05071                                      | 4N0C     | 4N     | .750"    | (19.05) | .032"          | (.81)  | .750"    | (19.05) | .50"          | (12.7)  | 5"            | (127)  | Black   | 100       |
| 161-05078                                      | 5N0C     | 5N     | 1"       | (25.4)  | .032"          | (.81)  | 1"       | (25.4)  | 1"            | (25.4)  | 7"            | (178)  | Black   | 100       |
| Natural Polytetrafluoroethylene -Teflon (PTFE) |          |        |          |         |                |        |          |         |               |         |               |        |         |           |
| 161-05015                                      | 1P9C     | 1P     | .125"    | (3.18)  | .020"          | (.76)  | .187"    | (4.75)  | .0625"        | (1.60)  | .50"          | (12.7) | Natural | 100       |
| 161-05047                                      | 2P9C     | 2P     | .250"    | (6.35)  | .030"          | (.76)  | .375"    | (9.53)  | .1875"        | (4.75)  | 2"            | (50.8) | Natural | 100       |
| 161-05028                                      | 2.5P9C   | 2.5P   | .375"    | (9.53)  | .030"          | (.76)  | .438"    | (11.13) | .3125"        | (7.92)  | 2.5"          | (63.5) | Natural | 100       |
| 161-05056                                      | 3P9C     | 3P     | .5"      | (12.7)  | .030"          | (.76)  | .5"      | (12.7)  | .375"         | (9.52)  | 3"            | (76.2) | Natural | 100       |
| 161-05076                                      | 4P9C     | 4P     | .750"    | (19.05) | .032"          | (.81)  | .750"    | (19.05) | .5"           | (12.7)  | 4"            | (102)  | Natural | 100       |
| 161-05081                                      | 5P9C     | 5P     | 1"       | (25.4)  | .040           | (1.02) | 1"       | (25.4)  | .750"         | (19.10) | 5 "           | (127)  | Natural | 100       |

Teflon is a registered trademark of the DuPont Corporation. Dimensions are approximate and subject to technical changes. Use **Part No.** for ordering and **Type** for specification purposes.

Spiralwrap *continued*

## Material Data

|             | Material                                       | Operating Temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Abrasion Resistance | Specific Gravity D792-66 | Effect of Solvents      | Effect of Acids                      | Effect of Alkalies | Water Absorption | Flammability       | Mil. Spec & Approvals                                                                                          |
|-------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------|-------------------------|--------------------------------------|--------------------|------------------|--------------------|----------------------------------------------------------------------------------------------------------------|
| <b>RoHS</b> | <b>Polyethylene (PE)</b>                       | Polyethylene is ideal for general applications that are not affected by ordinary solvents. Available in colors. Ultraviolet resistant black polyethylene is for outdoor use. It has the same qualities as clear polyethylene, but also contains an ultraviolet absorber which permits it to be used in direct sunlight for long periods of time. Available by special order in gray.                                                                                               |                     |                          |                         |                                      |                    |                  |                    |                                                                                                                |
|             | Natural Polyethylene (PE)                      | -76°F to +190°F<br>(-60°C to +88°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                | 22                  | 0.92                     | None below 122°F (50°C) | None                                 | None               | 0.014            | Flammable          | Fed. Spec. LP390                                                                                               |
|             | Black Polyethylene (PE)                        | -76°F to +190°F<br>(-60°C to +88°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                | 20                  | 0.93                     | None below 122°F (50°C) | None                                 | None               | 0.03             | Flammable          | MIL I-631D MIL P-21922A<br>Fed. Spec. LP390                                                                    |
| <b>RoHS</b> | <b>Polyethylene (PE), flame-retardant</b>      | Suitable for applications requiring a self-extinguishing material. Lower cost than polyamide 6 or teflon materials. Note: Natural color is milky white.                                                                                                                                                                                                                                                                                                                            |                     |                          |                         |                                      |                    |                  |                    |                                                                                                                |
|             | Natural Polyethylene (PE), flame-retardant     | -4°F to +176°F<br>(-20°C to + 80°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                | 27                  | 1.29                     | None below 122°F (50°C) | None                                 | None               | 0.02             | 94V-1              |                                                                                                                |
|             | Black Polyethylene (PE), flame-retardant       | -4°F to +176°F<br>(-20°C to + 80°C)                                                                                                                                                                                                                                                                                                                                                                                                                                                | 27                  | 1.29                     | None below 122°F (50°C) | None                                 | None               | 0.02             | 94V-1              |                                                                                                                |
| <b>RoHS</b> | <b>Polyamide 6 (PA6)</b>                       | Natural polyamide 6 is recommended for use in enclosed environments where the possibility of fire exists. Self-extinguishing. Does not produce any toxic or irritation, even when exposed to open flame or excessive temperatures. Polyamide 6 is six times as strong as polyethylene. Black polyamide 6 features the same properties as natural polyamide 6 with the added benefit of an ultraviolet absorber so that it can be used in direct sunlight for long periods of time. |                     |                          |                         |                                      |                    |                  |                    |                                                                                                                |
|             | Natural Polyamide 6 (PA6)                      | -40°F to +250°F<br>(-40°C to +121°C)                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6-8                 | 1.14                     | None                    | Satisfactory except for strong acids | None               | 1.5              | Self Extinguishing | MIL M-20693B<br>Type I MIL M-22096A LP 410A<br>MIL M-19098                                                     |
|             | Black Polyamide 6 (PA6)                        | -40°F to +250°F<br>(-40°C to +121°C)                                                                                                                                                                                                                                                                                                                                                                                                                                               | 6-8                 | 1.14                     | None                    | Satisfactory except for strong acids | None               | 1.5              | Self Extinguishing | MIL M-206393A<br>Type II MIL M-22096 LP 410A<br>MIL T-47287A<br>Type II AS 1294                                |
| <b>RoHS</b> | <b>Polytetrafluoroethylene -Teflon (PTFE)</b>  | Polytetrafluoroethylene -Teflon (PTFE) offers the widest operating temperature range of any material. It's chemically inert and non-flammable. Natural color is milky white, available with special order in black and colors.                                                                                                                                                                                                                                                     |                     |                          |                         |                                      |                    |                  |                    |                                                                                                                |
|             | Natural Polytetrafluoroethylene -Teflon (PTFE) | -450°F to +500°F<br>(-268°C to +260°C)                                                                                                                                                                                                                                                                                                                                                                                                                                             | 7                   | 2.1                      | None                    | None                                 | None               | 0.05             | Non-flammable      | AMS 3651C<br>AMS 3653C<br>AMS 3654 AMS 3655<br>ASTM D3295 MIL I-22129C P-22296B<br>MIL T-47287A Type I AS 1294 |

Teflon is a registered trademark of the DuPont Corporation.