

High-Visibility Protection Products

For identifying high voltage in electric vehicle and infrastructure applications

MADE FOR REAL 

Routing, Protection and Insulation

Convuluted Tubing

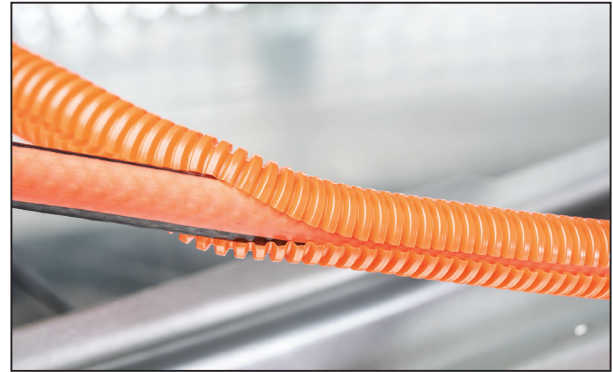
Convuluted Tubing

Convuluted Tubing in PE

HellermannTyton's Convuluted Tubing, also known as split loom tubing, provides an efficient method of routing and protecting wire harness assemblies, while reducing the chance of installation damage. With a split down the side where a wire harness can be inserted, convuluted tubing can be easily installed without removal of the entire assembly. It can also protect valuable hoses and cables. Convuluted tubing offers excellent protection against vibration wear, water, snow, ice and the effects of heat, cold and sunlight on cables and wires.

Features and Benefits

- Split side is ideal for applications where braided tubing or spiral wrap may be difficult to install.
- Tubing provides full coverage where spiral wrap or other coverings may not be suitable.
- Provides resistance to crushing, impact and abrasion for performance in harsh applications.



MATERIAL	Polyethylene (PE)
Operating Temperature	-40°F to +185°F (-40°C to +85°C)
Flammability	Not flame retardant



PART NO.	TYPE	Nominal Dia. in. (mm)	Outside Diameter (D) in. (mm)	Inner Diameter (D2) in. (mm)	Wall Thickness in. (mm)	Color	Pkg. Qty. Feet
Slit							
169-60550	CTP140	1/4 (6.4)	0.398 (10.1)	0.276 (7.0)	0.004 (0.1)	Orange, High Voltage	3200
169-60553	CTP380	3/8 (9.7)	0.526 (13.4)	0.380 (9.7)	0.005 (0.1)	Orange, High Voltage	1900
169-60549	CTP120	1/2 (12.7)	0.70 (17.8)	0.516 (13.1)	0.005 (0.1)	Orange, High Voltage	1100
169-60552	CTP340	3/4 (19.1)	0.989 (25.1)	0.759 (19.3)	0.005 (0.1)	Orange, High Voltage	550
169-60547	CTP10	1 (25.4)	1.304 (33.1)	1.069 (27.2)	0.006 (0.2)	Orange, High Voltage	300
169-60555	CTP1140	1-1/4 (31.8)	1.50 (38.1)	1.257 (31.9)	0.006 (0.2)	Orange, High Voltage	250
169-60548	CTP1120	1-1/2 (38.1)	1.947 (49.5)	1.647 (41.8)	0.006 (0.2)	Orange, High Voltage	150
169-60551	CTP20	2 (50.8)	2.388 (60.7)	2.038 (51.8)	0.011 (0.3)	Orange, High Voltage	100

Dimensions are approximate and subject to technical changes. Use Part No. for ordering and Type for specification purposes.

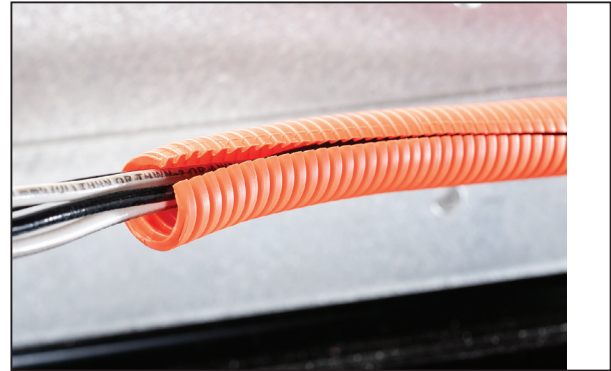
Convoluted Tubing

Convoluted Tubing in PPFR

HellermannTyton's Convoluted Tubing, also known as split loom tubing, provides an efficient method of routing and protecting wire harness assemblies while reducing the chance of installation damage. With a split down the side for inserting a wire harness, installation can be done without removal of the entire assembly. It can also protect valuable hoses and cables. Available in a variety of materials providing a range of flame resistance and operating temperatures.

Features and Benefits

- Split side is ideal for applications where braided tubing or spiral wrap may be difficult to install.
- Tubing provides full coverage where spiral wrap or other coverings may not be suitable.
- Product design offers exceptional protection against automotive fluids, vibration wear, water, snow, ice, and the effects of heat, cold and sunlight on cables and wires.
- Excellent flame resistance with higher operating temperature range than PE tubing.



MATERIAL	Polypropylene, flame retardant (PPFR)
Operating Temperature	-40°F to +257°F (-40°C to +125°C)
Color	Orange (OG), High Voltage (HV)



PART NO.	TYPE	Nominal Dia. in. (mm)	Outside Diameter (D) in. (mm)	Inner Diameter (D2) in. (mm)	Wall Thickness in. (mm)	Color	Pkg. Qty. Feet
Split							
169-60120	CTPPFR140	1/4 (6.4)	0.40 (10.2)	0.266 (6.8)	0.004 (0.1)	Orange, High Voltage	3200
169-60121	CTPPFR380	3/8 (9.7)	0.526 (13.4)	0.380 (9.7)	0.005 (0.1)	Orange, High Voltage	1800
169-60122	CTPPFR716	7/16 (11.1)	0.597 (15.2)	0.437 (11.1)	0.005 (0.1)	Orange, High Voltage	1400
169-60123	CTPPFR120	1/2 (12.7)	0.70 (17.8)	0.516 (13.1)	0.005 (0.1)	Orange, High Voltage	1100
169-60124	CTPPFR580	5/8 (16.0)	0.837 (21.3)	0.639 (16.2)	0.005 (0.1)	Orange, High Voltage	750
169-60125	CTPPFR340	3/4 (19.1)	0.989 (25.1)	0.759 (19.3)	0.005 (0.1)	Orange, High Voltage	500
169-60126	CTPPFR10	1 (25.4)	1.304 (33.1)	1.069 (27.2)	0.006 (0.2)	Orange, High Voltage	300
169-60127	CTPPFR1140	1-1/4 (31.8)	1.50 (38.1)	1.257 (31.9)	0.006 (0.2)	Orange, High Voltage	200
169-60128	CTPPFR1120	1-1/2 (38.1)	1.947 (49.5)	1.647 (41.8)	0.006 (0.2)	Orange, High Voltage	100

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Routing, Protection and Insulation

Braided Sleeving

Braided Sleeving

Twist-In Sleeving

HelaGaine Twist-In is made of a woven, self-closing material for fast and easy installation of wires. Easy access and excellent abrasion protection.

Features and Benefits

- Flexible, woven construction reduces abrasion and simplifies cable inspection.
- Self-wrapping feature allows for easy installation and removal of sleeving from enclosed components and cables.
- Over-wrapping pattern bends to tight radius yet prevents accidental exposure of wires.



MATERIAL	Polyester (PET)
Operating Temperature	-58°F to +257°F (-50°C to +125°C)
Flammability	Self-extinguishing, FMVSS 302, Type B
Melting Point	+491 °F (+255 °C)



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-01121	Twist-In(A)08	0.31 (8.0)	0.2 (5.0)	0.3 (8.0)	Orange, High Voltage	656.0 (200.0)
170-01119	Twist-In(A)13	0.51 (13.0)	0.4 (10.0)	0.5 (13.0)	Orange, High Voltage	164.0 (50.0)
170-01120	Twist-In(A)16	0.63 (16.0)	0.5 (13.0)	0.8 (19.0)	Orange, High Voltage	164.0 (50.0)
170-01126	Twist-In(A)25	0.98 (25.0)	0.8 (19.0)	1.0 (25.0)	Orange, High Voltage	82.0 (25.0)
170-01128	Twist-In(A)32	1.26 (32.0)	1.1 (29.0)	1.3 (32.0)	Orange, High Voltage	82.0 (25.0)
170-01130	Twist-In(A)50	1.97 (50.0)	1.5 (38.0)	2.0 (50.0)	Orange, High Voltage	28.0 (25.0)

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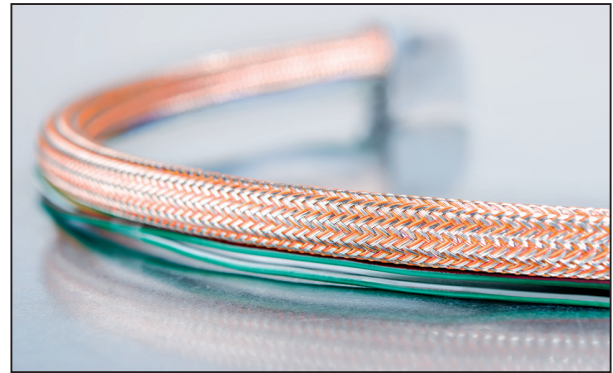
Braided Sleeving for Electromagnetic Protection

Helagaine HEGEMIP-HY

Special braided sleeving protects sensitive electronics from electromagnetic interference in hybrid and electric-powered vehicles. It won't rupture or kink, even when flexed at sharp angles. The sleeving has a 3:1 expansion ratio.

Features and Benefits

- Unique blend of polyester (protection yarns) and tinned copper (shielding yarns) offers excellent flexibility and EMI protection.
- Extremely flexible, expandable and easy to apply, making this product particularly well-suited for applications with space restrictions.
- Special copper alloy for enhanced protection against salt spray.
- Excellent flame resistance properties, including UL 94 V-2 and FMVSS 302 certifications.



MATERIAL	Polyester (PET), Tin-plated copper (SNCU)
Operating Temperature	-40°F to +302°F (-40°C to +150°C)
Flammability	UL 94 V-2, FMVSS 302



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
173-02001	HEGEMIP-HY20	0.8 (20.0)	0.7 (19.0)	1.1 (27.0)	Orange, High Voltage	164.0 (50.0)
173-03000	HEGEMIP-HY30	1.2 (30.0)	0.9 (25.0)	1.4 (35.0)	Orange, High Voltage	164.0 (50.0)
173-03501	HEGEMIP-HY35	1.4 (35.0)	1.2 (30.0)	1.6 (40.0)	Orange, High Voltage	164.0 (50.0)
173-04000	HEGEMIP-HY40	1.6 (40.0)	1.2 (30.0)	1.9 (50.0)	Orange, High Voltage	164.0 (50.0)
173-05000	HEGEMIP-HY50	1.9 (50.0)	1.6 (40.0)	2.4 (60.0)	Orange, High Voltage	164.0 (50.0)

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Routing, Protection and Insulation

Braided Sleeving

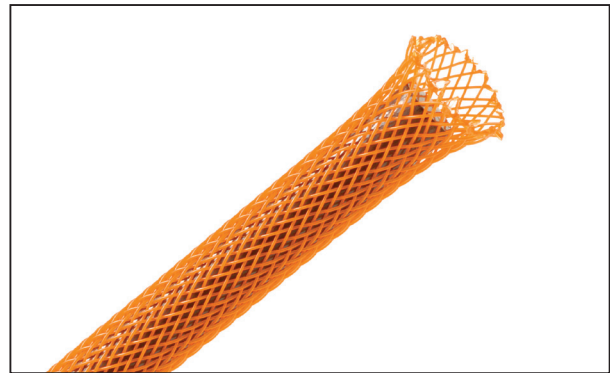
Braided Sleeving - General Purpose

General Purpose Expandable Braided Sleeving - Orange

Orange PET braided sleeving is an extremely flexible, general-purpose option for bundling and protecting wires and cables in abrasive applications. Its color makes it ideal for systematic color coding of complex wiring installations.

Features and Benefits

- Unique color provides easy visual and safety identification of critical wiring components.
- PET material offers high tensile strength while maintaining extreme flexibility.
- Expands up to 150% of flat diameter for easy wire installation.
- Breathable construction does not trap heat or humidity.
- Installs quickly and accommodates expansions and varying cable assembly shapes, reducing installation costs.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 94 V-0, FMVSS 302, FAR 25
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03076	BSP143B	0.25 (6.4)	0.1 (3.2)	0.4 (11.1)	Orange, High Voltage	1,000.0 (304.8)
170-03077	BSP123B	0.5 (12.7)	0.3 (6.4)	0.8 (19.1)	Orange, High Voltage	500.0 (152.4)
170-03078	BSP343B	0.75 (19.1)	0.5 (12.7)	1.3 (31.8)	Orange, High Voltage	250.0 (76.2)
170-03079	BSP103B	1 (25.4)	0.6 (15.9)	1.6 (41.3)	Orange, High Voltage	250.0 (76.2)
170-03080	BSP1143B	1.25 (31.8)	0.8 (19.1)	1.8 (44.5)	Orange, High Voltage	250.0 (76.2)
170-03081	BSP1123B	1.5 (38.1)	1.5 (38.1)	3.5 (88.9)	Orange, High Voltage	200.0 (61.0)

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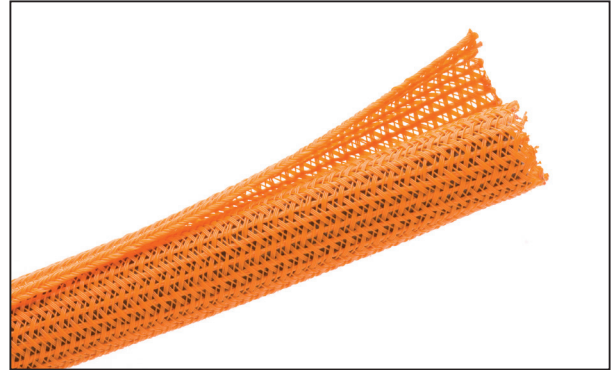
Braided Sleeving - Wraps

Braided Sleeving - Split Wrap

Used for safety identification, this bundling and protection option also offers a lateral split and a semi-rigid braid configuration that wraps around the bundle assembly without requiring fasteners, such as hook and loop, cable ties or tape.

Features and Benefits

- Split-wrap design needs no fasteners and installs quickly, saving assembly time and future accessibility without disassembly.
- Bends to a tight radius without distortion or splitting open.
- Unique construction retains shape and rigidity throughout unrolling.
- Easy-open design allows quick access and ability to apply protective sleeving post assembly or post installation situations.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +257°F (-70°C to +125°C)
Flammability	UL 94 V-0
Melting Point	+482 °F (+250 °C)
Abrasion Resistance	Medium



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03082	BSPSW143B	0.25 (6.4)	0.1 (2.5)	0.3 (6.4)	Orange, High Voltage	200.0 (61.0)
170-03083	BSPSW123B	0.5 (12.7)	0.1 (2.5)	0.5 (12.7)	Orange, High Voltage	150.0 (45.7)
170-03084	BSPSW343B	0.75 (19.1)	0.1 (2.5)	0.8 (19.1)	Orange, High Voltage	100.0 (30.5)
170-03085	BSPSW103B	1 (25.4)	0.1 (2.5)	1.0 (25.4)	Orange, High Voltage	100.0 (30.5)
170-03086	BSPSW1143B	1.25 (31.8)	0.1 (2.5)	1.3 (31.8)	Orange, High Voltage	75.0 (22.9)
170-03087	BSPSW1123B	1.5 (38.1)	0.1 (2.5)	1.5 (38.1)	Orange, High Voltage	75.0 (22.9)
170-03088	BSPSW203B	2 (50.8)	0.1 (2.5)	2.0 (50.8)	Orange, High Voltage	50.0 (15.2)

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Routing, Protection and Insulation

Braided Sleeving

Braided Sleeving - Wraps

Woven Wrap - PET

This split, wrap-around style woven convoluted sleeving utilizes a unique elastic construction for added flexibility and abrasion resistance. The overlapping design creates material memory allowing the sleeve to quickly roll back over connectors and splices without exposing bundled cabling.

Features and Benefits

- Self-wrapping feature allows easy installation and future access to wire and cables.
- Unique blend and construction using monofilament and multifilament strands provide flexibility, high coverage and abrasion resistance.
- Extra overlapping design keeps wires contained even in tight bend conditions.



MATERIAL	Polyester (PET)
Operating Temperature	-94°F to +302°F (-70°C to +150°C)
Flammability	UL 94 V-0 and FMVSS-302
Melting Point	+482 °F (+250 °C)



PART NO.	TYPE	Nominal Dia. (D) in. (mm)	Min. Bundle Diameter in. (mm)	Max. Bundle Diameter in. (mm)	Color	Reel Length (L) ft. (m)
170-03231	BSPW316	0.197 (5.0)	0.1 (2.5)	0.2 (4.7)	Orange	500.0 (152.4)
170-03232	BSPW516	0.315 (8.0)	0.1 (2.5)	0.3 (8.0)	Orange	325.0 (99.1)
170-03230	BSPW380	0.394 (10.0)	0.1 (2.5)	0.4 (9.5)	Orange	150.0 (45.7)
170-03233	BSPW120	0.512 (13.0)	0.1 (2.5)	0.5 (12.7)	Orange	150.0 (45.7)
170-03234	BSPW580	0.630 (16.0)	0.1 (2.5)	0.6 (16.1)	Orange	100.0 (30.5)
170-03235	BSPW340	0.748 (19.0)	0.1 (2.5)	0.8 (19.1)	Orange	100.0 (30.5)
170-03236	BSPW10	0.984 (25.0)	0.1 (2.5)	1.0 (25.4)	Orange	100.0 (30.5)
170-03237	BSPW1140	1.181 (30.0)	0.1 (2.5)	1.3 (31.8)	Orange	50.0 (15.2)
170-03238	BSPW1120	1.496 (38.0)	0.1 (2.5)	1.5 (38.1)	Orange	50.0 (15.2)

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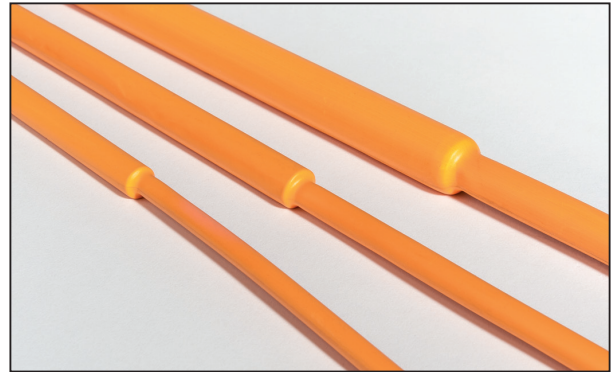
Non-Adhesive 2-to-1 Shrink Ratio

Heat Shrink Tubing - TF21

TF21 is highly flexible, thin-wall, heat-shrink tubing with a 2-to-1 shrink ratio and excellent flame retardant properties. In addition to providing insulation and abrasion protection for wires and cables, the polyolefin material also offers resistance to oils, solvents and chemicals. TF21 is UL Recognized with a UL 224 VW-1 flame rating.

Features and Benefits

- Quick and easy shrinking TF21 tubing is widely used for insulating, mechanical protection, strain relief, marking and bundling.
- The excellent balance of electrical, mechanical and chemical properties meets and exceeds industrial standards.
- TF21 is UL 224 Recognized and available in a wide range of sizes and colors.



MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Longitudinal Change After Shrinkage	+/-5%
Min. Shrink Temperature	+194 °F (+90 °C)
Operating Temperature	-67°F to +275°F (-55°C to +135°C)
Flammability	ASTM D876



PART NO.	TYPE	Supplied Ø (D) mm	Recovered Ø (D) mm	Wall Thickness mm	Color
309-20483	TF21-4.8/2.4	4.8	2.4	0.5	Orange, High Voltage
309-20953	TF21-9.5/4.8	9.5	4.8	0.6	Orange, High Voltage
309-21273	TF21-12.7/6.4	12.7	6.4	0.6	Orange, High Voltage
309-21903	TF21-19.1/9.5	19.1	9.5	0.8	Orange, High Voltage

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