





2.1 Heat Shrink Tubing

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Heat shrinkable tubing 2:1 - flexible and coloured

HFT-A - self extinguishing

This high performance thin wall tubing is used extensively for electrical and mechanical protection. It is also well proven for sleeve marking to identify wiring circuits.

Features and benefits

- Flexible heat shrink tubing
- Fast shrinking, easy handling, good mechanical strength
- Wide range of colours
- Internal diameters up to 102 mm (4 inches)
- UL-224 ,CSA listed and VG approved

Standard sizes available in colours black, red, blue, yellow, white and green-yellow.



HFT-A conforms to major standards (VG) used in all Defence industries.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+135 °C
Longitudinal Change After Shrinkage	-5% max.
Dielectric Strength	21 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 2:1

PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Designation as per VG-Norm	Article-No.
HFT-A-1.2/0.6-PO-X-BK	1.2	0.6	0.40	400 m	VG 95343 T05 A 001 A	305-01200
HFT-A-1.2/0.6-PO-X-RD	1.2	0.6	0.40	400 m	VG 95343 T05 A 001 C	305-01202
HFT-A-1.2/0.6-PO-X-YE	1.2	0.6	0.40	400 m	VG 95343 T05 A 001 E	305-01204
HFT-A-1.2/0.6-PO-X-BU	1.2	0.6	0.40	400 m	VG 95343 T05 A 001 G	305-01206
HFT-A-1.2/0.6-PO-X-WH	1.2	0.6	0.40	400 m	VG 95343 T05 A 001 L	305-01209
HFT-A-1.6/0.8-PO-X-BK	1.6	0.8	0.40	400 m	VG 95343 T05 A 002 A	305-01600
HFT-A-1.6/0.8-PO-X-RD	1.6	0.8	0.40	400 m	VG 95343 T05 A 002 C	305-01602
HFT-A-1.6/0.8-PO-X-YE	1.6	0.8	0.40	400 m	VG 95343 T05 A 002 E	305-01604
HFT-A-1.6/0.8-PO-X-BU	1.6	0.8	0.40	400 m	VG 95343 T05 A 002 G	305-01606
HFT-A-1.6/0.8-PO-X-WH	1.6	0.8	0.40	400 m	VG 95343 T05 A 002 L	305-01609
HFT-A-2.4/1.2-PO-X-RD	2.4	1.2	0.50	100 m	VG 95343 T05 A 003 C	305-02402
HFT-A-2.4/1.2-PO-X-YE	2.4	1.2	0.50	100 m	VG 95343 T05 A 003 E	305-02404
HFT-A-2.4/1.2-PO-X-BU	2.4	1.2	0.50	100 m	VG 95343 T05 A 003 G	305-02406
HFT-A-2.4/1.2-PO-X-WH	2.4	1.2	0.50	100 m	VG 95343 T05 A 003 L	305-02409

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - flexible and coloured

HFT-A - self extinguishing

PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Designation as per VG-Norm	Article-No.
HFT-A-2.4/1.2-PO-X-BK	2.4	1.2	0.50	400 m	VG 95343 T05 A 003 A	305-02400
HFT-A-3.2/1.6-PO-X-RD	3.2	1.6	0.50	100 m	VG 95343 T05 A 004 C	305-03202
HFT-A-3.2/1.6-PO-X-YE	3.2	1.6	0.50	100 m	VG 95343 T05 A 004 E	305-03204
HFT-A-3.2/1.6-PO-X-BU	3.2	1.6	0.50	100 m	VG 95343 T05 A 004 G	305-03206
HFT-A-3.2/1.6-PO-X-WH	3.2	1.6	0.50	100 m	VG 95343 T05 A 004 L	305-03209
HFT-A-3.2/1.6-PO-X-GNYYE	3.2	1.6	0.50	100 m	VG 95343 T05 A 004 N	305-03245
HFT-A-3.2/1.6-PO-X-BK	3.2	1.6	0.50	400 m	VG 95343 T05 A 004 A	305-03200
HFT-A-4.8/2.4-PO-X-RD	4.8	2.4	0.50	75 m	VG 95343 T05 A 005 C	305-04802
HFT-A-4.8/2.4-PO-X-YE	4.8	2.4	0.50	75 m	VG 95343 T05 A 005 E	305-04804
HFT-A-4.8/2.4-PO-X-BU	4.8	2.4	0.50	75 m	VG 95343 T05 A 005 G	305-04806
HFT-A-4.8/2.4-PO-X-WH	4.8	2.4	0.50	75 m	VG 95343 T05 A 005 L	305-04809
HFT-A-4.8/2.4-PO-X-GNYYE	4.8	2.4	0.50	75 m	VG 95343 T05 A 005 N	305-04845
HFT-A-4.8/2.4-PO-X-BK	4.8	2.4	0.50	300 m	VG 95343 T05 A 005 A	305-04800
HFT-A-6.4/3.2-PO-X-RD	6.4	3.2	0.60	75 m	VG 95343 T05 A 006 C	305-06402
HFT-A-6.4/3.2-PO-X-YE	6.4	3.2	0.60	75 m	VG 95343 T05 A 006 E	305-06404
HFT-A-6.4/3.2-PO-X-BU	6.4	3.2	0.60	75 m	VG 95343 T05 A 006 G	305-06406
HFT-A-6.4/3.2-PO-X-WH	6.4	3.2	0.60	75 m	VG 95343 T05 A 006 L	305-06409
HFT-A-6.4/3.2-PO-X-GNYYE	6.4	3.2	0.60	75 m	VG 95343 T05 A 006 N	305-06445
HFT-A-6.4/3.2-PO-X-BK	6.4	3.2	0.60	300 m	VG 95343 T05 A 006 A	305-06400
HFT-A-9.5/4.8-PO-X-RD	9.5	4.8	0.60	50 m	VG 95343 T05 A 007 C	305-09502
HFT-A-9.5/4.8-PO-X-YE	9.5	4.8	0.60	50 m	VG 95343 T05 A 007 E	305-09504
HFT-A-9.5/4.8-PO-X-BU	9.5	4.8	0.60	50 m	VG 95343 T05 A 007 G	305-09506
HFT-A-9.5/4.8-PO-X-WH	9.5	4.8	0.60	50 m	VG 95343 T05 A 007 L	305-09509
HFT-A-9.5/4.8-PO-X-GNYYE	9.5	4.8	0.60	50 m	VG 95343 T05 A 007 N	305-09545
HFT-A-9.5/4.8-PO-X-BK	9.5	4.8	0.60	150 m	VG 95343 T05 A 007 A	305-09500
HFT-A-12.7/6.4-PO-X-RD	12.7	6.4	0.60	50 m	VG 95343 T05 A 008 C	305-12702
HFT-A-12.7/6.4-PO-X-YE	12.7	6.4	0.60	50 m	VG 95343 T05 A 008 E	305-12704
HFT-A-12.7/6.4-PO-X-BU	12.7	6.4	0.60	50 m	VG 95343 T05 A 008 G	305-12706
HFT-A-12.7/6.4-PO-X-WH	12.7	6.4	0.60	50 m	VG 95343 T05 A 008 L	305-12709
HFT-A-12.7/6.4-PO-X-GNYYE	12.7	6.4	0.60	50 m	VG 95343 T05 A 008 N	305-12745
HFT-A-12.7/6.4-PO-X-BK	12.7	6.4	0.60	100 m	VG 95343 T05 A 008 A	305-12700
HFT-A-19.0/9.5-PO-X-RD	19.0	9.5	0.80	25 m	VG 95343 T05 A 009 C	305-19002
HFT-A-19.0/9.5-PO-X-YE	19.0	9.5	0.80	25 m	VG 95343 T05 A 009 E	305-19004
HFT-A-19.0/9.5-PO-X-BU	19.0	9.5	0.80	25 m	VG 95343 T05 A 009 G	305-19006
HFT-A-19.0/9.5-PO-X-WH	19.0	9.5	0.80	25 m	VG 95343 T05 A 009 L	305-19009
HFT-A-19.0/9.5-PO-X-GNYYE	19.0	9.5	0.80	25 m	VG 95343 T05 A 009 N	305-19045
HFT-A-19.0/9.5-PO-X-BK	19.0	9.5	0.80	50 m	VG 95343 T05 A 009 A	305-19000
HFT-A-25.4/12.7-PO-X-RD	25.4	12.7	0.90	25 m	VG 95343 T05 A 010 C	305-25402
HFT-A-25.4/12.7-PO-X-YE	25.4	12.7	0.90	25 m	VG 95343 T05 A 010 E	305-25404
HFT-A-25.4/12.7-PO-X-BU	25.4	12.7	0.90	25 m	VG 95343 T05 A 010 G	305-25406
HFT-A-25.4/12.7-PO-X-WH	25.4	12.7	0.90	25 m	VG 95343 T05 A 010 L	305-25409
HFT-A-25.4/12.7-PO-X-GNYYE	25.4	12.7	0.90	25 m	VG 95343 T05 A 010 N	305-25445

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - flexible and coloured

HFT-A - self extinguishing



Heat Shrink Tubing 2:1



PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Designation as per VG-Norm	Article-No.
HFT-A-25.4/12.7-PO-X-BK	25.4	12.7	0.90	50 m	VG 95343 T05 A 010 A	305-25400
HFT-A-38.0/19.0-PO-X-BK	38.0	19.0	1.00	50 m	VG 95343 T05 A 011 A	305-38100
HFT-A-38.0/19.0-PO-X-RD	38.0	19.0	1.00	50 m	VG 95343 T05 A 011 C	305-38102
HFT-A-38.0/19.0-PO-X-YE	38.0	19.0	1.00	50 m	VG 95343 T05 A 011 E	305-38104
HFT-A-38.0/19.0-PO-X-BU	38.0	19.0	1.00	50 m	VG 95343 T05 A 011 G	305-38106
HFT-A-38.0/19.0-PO-X-WH	38.0	19.0	1.00	50 m	VG 95343 T05 A 011 L	305-38109
HFT-A-38.0/19.0-PO-X-GNYYE	38.0	19.0	1.00	50 m	VG 95343 T05 A 011 N	305-38145
HFT-A-50.8/25.4-PO-X-BK	51.0	25.4	1.10	35 m	VG 95343 T05 A 012 A	305-50800
HFT-A-50.8/25.4-PO-X-RD	51.0	25.4	1.10	35 m	VG 95343 T05 A 012 C	305-50802
HFT-A-50.8/25.4-PO-X-YE	51.0	25.4	1.10	35 m	VG 95343 T05 A 012 E	305-50804
HFT-A-50.8/25.4-PO-X-BU	51.0	25.4	1.10	35 m	VG 95343 T05 A 012 G	305-50806
HFT-A-50.8/25.4-PO-X-WH	51.0	25.4	1.10	35 m	VG 95343 T05 A 012 L	305-50809
HFT-A-76.0/38.0-PO-X-BK	76.0	38.0	1.30	25 m	VG 95343 T05 A 013 A	305-76200
HFT-A-76.0/38.0-PO-X-RD	76.0	38.0	1.30	25 m	VG 95343 T05 A 013 C	305-76202
HFT-A-76.0/38.0-PO-X-YE	76.0	38.0	1.30	25 m	VG 95343 T05 A 013 E	305-76204
HFT-A-76.0/38.0-PO-X-BU	76.0	38.0	1.30	25 m	VG 95343 T05 A 013 G	305-76206
HFT-A-101.6/50.8-PO-X-BK	102.0	51.0	1.40	25 m	VG 95343 T05 A 014 A	305-91600
HFT-A-101.6/50.8-PO-X-RD	102.0	51.0	1.40	25 m	VG 95343 T05 A 014 C	305-91602
HFT-A-101.6/50.8-PO-X-YE	102.0	51.0	1.40	25 m	VG 95343 T05 A 014 E	305-91604
HFT-A-101.6/50.8-PO-X-BU	102.0	51.0	1.40	25 m	VG 95343 T05 A 014 G	305-91606
HFT-A-101.6/50.8-PO-X-WH	102.0	51.0	1.40	25 m	VG 95343 T05 A 014 L	305-91609

All dimensions in mm. Subject to technical changes.



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Heat shrinkable tubing 2:1 - flexible and coloured

TF21

Due to its versatility TF21 is suitable for a wide range of applications like electrical insulations, mechanical protection and marking.

Features and benefits

- Thin wall, flexible polyolefin tubing
- Fast shrinking and low shrink temperature
- Meets and exceeds a range of industrial standards
- Big variety of different colours and sizes
- Flame retardant and UL224 VW1 listed

More colours on request.

Cut lengths available on request. Please contact us!



TF21 - available in a wide range of colours and sizes.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+105 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	30 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 2:1



PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Article-No.
TF21-3.2/1.6-PO-X-YE	3.2	1.6	0.51	100 m	309-20324
TF21-3.2/1.6-PO-X-WH	3.2	1.6	0.51	100 m	309-20329
TF21-3.2/1.6-PO-X-BK	3.2	1.6	0.51	300 m	309-10320
TF21-4.8/2.4-PO-X-GNYE	4.8	2.4	0.51	60 m	309-50487
TF21-12.7/6.4-PO-X-RD	12.7	6.4	0.64	50 m	309-21272
TF21-19.1/9.5-PO-X-YE	19.1	9.5	0.76	50 m	309-11904
TF21-25.4/12.7-PO-X-GNYE	25.4	12.7	0.89	50 m	309-12547

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - flexible and transparent

TF24

Protects wire and cable markers subject to abuse, while permitting inspectability of each item covered. Protects electronic components while permitting their identification and inspection.

Features and benefits

- Transparent, flexible polyolefin tubing
- Protects identification marking perfect
- Halogen free
- Good mechanical and chemical resistance
- VG and additional industrial approvals

Cut lengths available on request. Please contact us!



TF24 transparent tubing with 2:1 shrink ratio.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+110 °C
Longitudinal Change After Shrinkage	+/-5% max.
Dielectric Strength	30 kV/mm



Heat Shrink Tubing 2:1

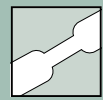


PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Reel Length	Designation as per VG-Norm	Article-No.
TF24-12.7/6.4-PO-X-CL	12.7	6.4	0.64	50.0 m	50 m	VG 95343 T05 B 008 M	309-41273
TF24-19.1/9.5-PO-X-CL	19.1	9.5	0.76	50.0 m	50 m	VG 95343 T05 B 009 M	309-31903
TF24-25.4/12.7-PO-X-CL	25.4	12.7	0.89	50.0 m	50 m	VG 95343 T05 B 010 M	309-32543
TF24-38.1/19.1-PO-X-CL	38.1	19.1	1.02	60.0 m	60 m	VG 95343 T05 B 011 M	309-33813

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



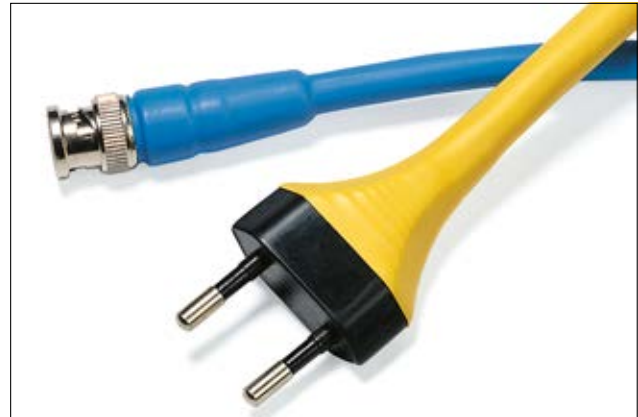
Heat shrinkable tubing 3:1 - flexible and coloured

TF31

If higher fire protection is a requirement TF31 heat shrinkable tubing is a good choice. It is used for protection, insulation and identification wires, cables and light duty harnesses.

Features and benefits

- Thin wall, very flexible polyolefin tubing
- A small range of sizes cover a wide range of diameters allowing reduced inventory
- Fast shrinking and low shrink temperature
- Flame-retardant, UL224 VW1 listed



TF31 with 3:1 shrink ratio allowing for a wider range of application.

Cut lengths available on request. Please contact us!

More colours on request.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+105 °C
Longitudinal Change After Shrinkage	+5%/-15%
Dielectric Strength	30 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 3:1



PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Article-No.
TF31-3/1-PO-X-WH	3.0	1.0	0.60	30 m	333-30309
TF31-9/3-PO-X-RD	9.0	3.0	0.80	30 m	333-30902
TF31-9/3-PO-X-BU	9.0	3.0	0.80	30 m	333-30906
TF31-9/3-PO-X-BK	9.0	3.0	0.80	150 m	333-20900
TF31-12/4-PO-X-BK	12.0	4.0	0.85	100 m	333-21200
TF31-18/6-PO-X-YE	18.0	6.0	1.00	30 m	333-31804
TF31-24/8-PO-X-RD	24.0	8.0	1.20	30 m	333-32402
TF31-40/13-PO-X-WH	40.0	13.0	1.25	30 m	333-34009

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 - flexible and transparent

TF34

Protects wire and cable markers subject to abuse, while permitting inspectability of each item covered. Protects electronic components while permitting their identification and inspection.

Features and benefits

- Transparent, flexible polyolefin tubing
- Protects identification marking perfectly
- A small range of sizes required to cover a wide range of diameters allowing reduced inventory
- Halogen free



TF34 transparent tubing with 3:1 shrink ratio allowing for a wider range of application.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+110 °C
Longitudinal Change After Shrinkage	-5% max.
Dielectric Strength	46 kV/mm



Heat Shrink Tubing 3:1



PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Reel Length	Article-No.
TF34-6/2-PO-X-CL	6.0	2.0	0.70	30 m	333-30603
TF34-24/8-PO-X-CL	24.0	8.0	1.20	30 m	333-32403

All dimensions in mm. Subject to technical changes.

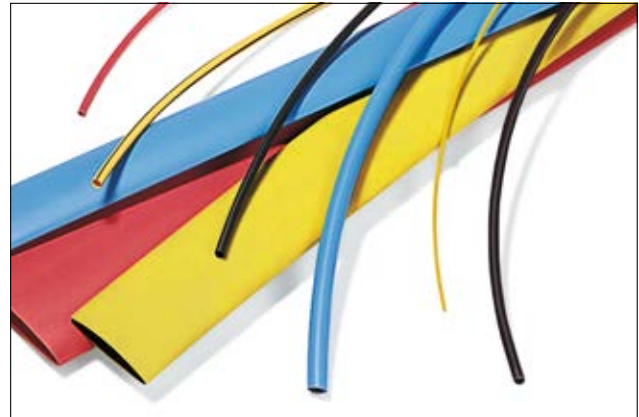
Heat shrinkable tubing 2:1 - flexible and coloured

TFN21

TFN21 is suitable for a wide range of applications like electrical insulations, mechanical protection and cable bundling.

Features and benefits

- High shrink ratio (2:1)
- Few sizes cover a wide range of diameters allowing reduced inventory
- Thin wall, flexible polyolefin tubing
- Fast shrinking and low shrink temperature
- Flame-retardant, UL224 VW1 listed (except transparent)



TFN21 - available in a wide range of colours and sizes.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+70 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	20 kV/mm
Flammability	UL 224 VW-1

RoHS



Heat Shrink Tubing 2:1



PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Article-No.
TFN21 1.2/0.6-PO-X-BK	1.2	0.6	0.40	300 m	309-60190
TFN21 3.2/1.6-PO-X-YE	3.2	1.6	0.48	300 m	309-60124
TFN21 4.8/2.4-PO-X-BK	4.8	2.4	0.48	300 m	309-60131
TFN21 6.4/3.2-PO-X-BK	6.4	3.2	0.56	300 m	309-60141
TFN21 12.7/6.4-PO-X-BK	12.7	6.4	0.62	100 m	309-60161
TFN21 19.1/9.5-PO-X-BK	19.1	9.5	0.68	60 m	309-60171
TFN21 38.1/19.1-PO-X-BK	38.1	19.1	1.00	30 m	309-60200
TFN21 50.8/25.4-PO-X-BK	50.8	25.4	1.10	30 m	309-60210

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heatshrink Tube

TFN24

They allow the visualization of the covered place, besides ensuring perfect isolation and protection. Ideal for electro-electronic applications, for insulation of wires, cables, connectors and electronic components.

Features and benefits

- Allows viewing of the covered location
- Ensures perfect insulation and protection
- Ideal for electrical and electronic applications



TF34 transparent tubing with 3:1 shrink ratio allowing for a wider range of application.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	2:1
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+100 °C
Longitudinal Change After Shrinkage	+/-5%
Dielectric Strength	20 kV/mm
Flammability	UL 224 VW-1
Self extinguishing	Yes

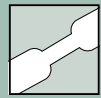
RoHS ✓



Heat Shrink Tubing 2:1

PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Article-No.
TFN24-38.1/19.1-PO-X-CL	-	-	-	15 m	309-60096
TFN24 - 6.4/3.2-PO-X-CL	6.4	3.2	0.30	300 m	309-60050
TFN24 - 9.5/4.8-PO-X-CL	9.5	4.8	0.30	150 m	309-60060
TFN24 - 38.1/19.1-PO-X-CL	38.1	19.1	-	30 m	309-60095

All dimensions in mm. Subject to technical changes.



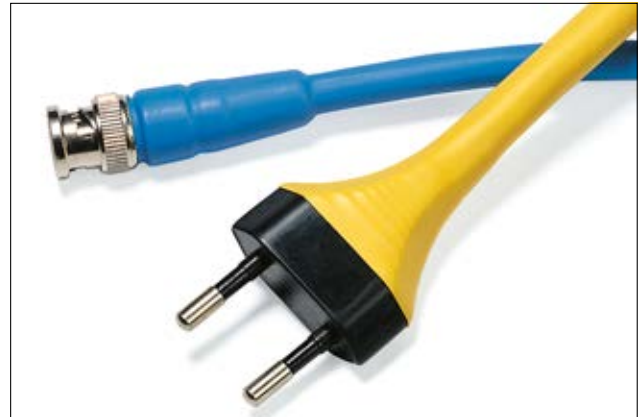
Heat shrinkable tubing 3:1 - flexible and coloured

TFN31

If higher fire protection is a requirement heat shrinkable tubing TFN31 is a good choice. It is used for protection, insulation and identification wires, cables and light duty harnesses.

Features and benefits

- High shrink ratio (3:1)
- Few sizes cover a wide range of diameters allowing reduced inventory
- Thin wall, flexible polyolefin tubing
- Fast shrinking and low shrink temperature
- Flame-retardant, UL224 VW1 listed



Heatshrinkable Tubing TFN21 and TFN31.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-55 °C to +135 °C
Min. Shrink Temperature	+70 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm
Flammability	UL 224 VW-1

RoHS ✓



PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Article-No.
TFN31-3/1-PO-X-RD	3.0	1.0	0.55	300 m	333-42090
TFN31-3/1-PO-X-YE	3.0	1.0	0.55	300 m	333-42091
TFN31 6/2-PO-X-BK	6.4	2.0	0.65	30 m	333-42003
TFN31-6/2-PO-X-RD	6.4	2.0	0.65	300 m	333-42094
TFN31-6/2-PO-X-YE	6.4	2.0	0.65	300 m	333-42095
TFN31 9/3-PO-X-CL	9.0	3.0	0.75	30 m	333-42013
TFN31 9/3-PO-X-BK	9.0	3.0	0.75	150 m	333-41001
TFN31-9/3-PO-X-RD	9.0	3.0	0.75	150 m	333-42096
TFN31-9/3-PO-X-YE	9.0	3.0	0.75	150 m	333-42097
TFN31 12/4-PO-X-BK	12.0	4.0	0.80	30 m	333-42005
TFN31 12/4-PO-X-CL	12.0	4.0	0.80	30 m	333-42014
TFN31 12/4-PO-X-YE	12.0	4.0	0.80	30 m	333-42032
TFN31-12/4-PO-X-RD	12.0	4.0	0.80	100 m	333-42085
TFN31-12/4-PO-X-YE	12.0	4.0	0.80	100 m	333-42086
TFN31-18/6-PO-X-YE	18.0	6.0	0.90	60 m	333-42087
TFN31-24/8-PO-X-RD	24.0	8.0	1.20	60 m	333-42088

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 3:1 - flexible and coloured

TFN31

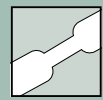


PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Pack Cont.	Article-No.
TFN31-24/8-PO-X-YE	24.0	8.0	1.20	60 m	333-42089
TFN31-39/13-PO-X-RD	39.0	13.0	1.25	30 m	333-42092
TFN31-39/13-PO-X-YE	39.0	13.0	1.25	30 m	333-42093

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing adhesive lined

EPS-300 - 3:1 shrink ratio

Heatshrinkable tubing EPS seals and protects a wide variety of electrical applications like back end connector sealing, connector-to-cable transitions and splices.

Features and benefits

- Flexible, thin wall polyolefin heat shrink tubing
- With coextruded hot melt adhesive inner wall
- Protects against moisture
- Provides an environmental sealing of complex parts

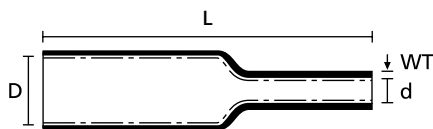
Cut lengths available on request. Please contact us!



EPS300 and EPS400 offer high shrink ratios and protection against humidity.

MATERIAL	Polyolefin, cross-linked (PO-X)
Operating Temperature	-55 °C to +125 °C
Min. Shrink Temperature	+120 °C
Longitudinal Change After Shrinkage	-5% max.
Softening Point Adhesive	+90 °C
Dielectric Strength	45 kV/mm
Self extinguishing	Yes

RoHS ✓



Heat Shrink Tubing 3:1 with adhesive

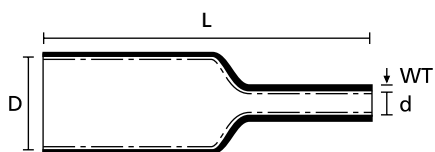


PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Reel Length	Shrink Ratio	Article-No.
EPS-300-3/1-PO-X-BK	3.0	1.0	1.00	400.0 m	400 m	3:1	340-03010
EPS-300-6/2-PO-X-BK	6.0	2.0	1.00	300.0 m	300 m	3:1	340-06020
EPS-300-9/3-PO-X-BK	9.0	3.0	1.40	150.0 m	150 m	3:1	340-09030
EPS-300-12/4-PO-X-BK	12.0	4.0	1.80	100.0 m	100 m	3:1	340-12040
EPS-300-19/6-PO-X-BK	19.0	6.0	2.20	50.0 m	50 m	3:1	340-19060
EPS-300-24/8-PO-X-BK	24.0	8.0	2.50	25.0 m	25 m	3:1	340-24080
EPS-300-40/13-PO-X-BK	40.0	13.0	2.50	25.0 m	25 m	3:1	340-40130

All dimensions in mm. Subject to technical changes.



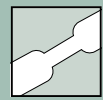
EPS-400 - 4:1 shrink ratio



Heat Shrink Tubing 4:1 with adhesive

PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Reel Length	Shrink Ratio	Article-No.
EPS-400-4/1-PO-X-BK	4.0	1.0	1.00	300.0 m	300 m	4:1	341-04010
EPS-400-8/2-PO-X-BK	8.0	2.0	1.00	150.0 m	150 m	4:1	341-08020
EPS-400-12/3-PO-X-BK	12.0	3.0	1.40	100.0 m	100 m	4:1	341-12030
EPS-400-16/4-PO-X-BK	16.0	4.0	1.80	100.0 m	100 m	4:1	341-16040
EPS-400-24/6-PO-X-BK	24.0	6.0	2.20	50.0 m	50 m	4:1	341-24060
EPS-400-32/8-PO-X-BK	32.0	8.0	2.50	25.0 m	25 m	4:1	341-32080

All dimensions in mm. Subject to technical changes.



Heat shrinkable tubing 3:1 - Flame retardant

TA37 – thin wall adhesive lined

TA37 shrink tubing has a low smoke index and excellent flame retardant properties to meet strict fire security standards in electrical insulation.

Features and benefits

- Thin wall adhesive lined heat shrink tubing
- Halogen free
- Flame retardant
- Combination of these three (halogen free, adhesive lined and flame retardant) product properties is unique
- Low smoke generation
- Low generation of toxic gases and corrosive acid



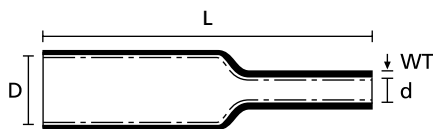
TA37 - Halogenfree and self-extinguishing 3:1 Thin Dual Wall Heat Shrink Tubing.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	3:1
Operating Temperature	-40 °C to +105 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal Change After Shrinkage	+3%/-15%
Dielectric Strength	19.7 kV/mm
Self extinguishing	Yes

HF ✓

LFH ✓

RoHS ✓



Heat Shrink Tubing 3:1 with adhesive



PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Article-No.
TA37 12-4-PO-X-BK-PO-X-BK	12.7	4.0	1.40	1.2 m	315-13004
TA37 19-6-PO-X-BK-PO-X-BK	19.1	6.0	2.20	1.2 m	315-13005
TA37 24-8-PO-X-BK-PO-X-BK	24.0	8.0	2.50	1.2 m	315-13006
TA37 40-13-PO-X-BK-PO-X-BK	40.0	13.0	2.50	1.2 m	315-13007
TA37 50-19-PO-X-BK-PO-X-BK	50.0	19.0	4.00	1.2 m	315-13008
TA37 75-25-PO-X-BK-PO-X-BK	75.0	25.0	3.00	1.2 m	315-13009

All dimensions in mm. Subject to technical changes.

EN 45545-2

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing 2:1 - Elastomer

SE28

SE28 is used for long-term protection of cables and wire harnesses in military equipment, motor sports and aviation.

Features and benefits

- Flexible, high performance elastomeric heat shrink tubing
- Used in aerospace, defence, railway and automotive applications
- Resistant to diesel fuel, aviation and hydraulic fluids
- Provides a reliable protection against abrasion and mechanical damage
- Very suitable for protecting cables and wire harnesses
- For high temperature applications up to 150 °C



SE28 - Diesel resistant 2:1 high performance elastomer heat shrink tubing.

MATERIAL	Elastomer, cross-linked (POA)
Shrink Ratio	2:1
Operating Temperature	-75 °C to +150 °C
Min. Shrink Temperature	+170 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	20 kV/mm
Flammability	VG 95343-5
Self extinguishing	Yes

RoHS



Heat Shrink Tubing 2:1

PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Reel Length	Designation as per VG-Norm	Tools	Article-No.
SE28 3.2/1.6-POA-BK	3.2	1.6	0.75	150.0 m	150 m	VG 95343 T05 D 001 A	32	342-20000
SE28 4.8/2.4-POA-BK	4.8	2.4	0.85	60.0 m	60 m	VG 95343 T05 D 002 A	32	342-20010
SE28 6.4/3.2-POA-BK	6.4	3.2	0.90	60.0 m	60 m	VG 95343 T05 D 003 A	32	342-20020
SE28 9.5/4.8-POA-BK	9.5	4.8	1.00	60.0 m	60 m	VG 95343 T05 D 004 A	32	342-20030
SE28 12.7/6.4-POA-BK	12.7	6.4	1.20	60.0 m	60 m	VG 95343 T05 D 005 A	32	342-20040
SE28 19.0/9.5-POA-BK	19.0	9.5	1.45	30.0 m	30 m	VG 95343 T05 D 006 A	32	342-20050
SE28 25.4/12.7-POA-BK	25.4	12.7	1.80	30.0 m	30 m	VG 95343 T05 D 007 A	32	342-20060
SE28 38.0/19.0-POA-BK	38.0	19.0	2.40	30.0 m	30 m	VG 95343 T05 D 008 A	32	342-20070
SE28 51.0/25.4-POA-BK	51.0	25.4	2.80	30.0 m	30 m	VG 95343 T05 D 009 A	32	342-20080
SE28 76.0/38.0-POA-BK	76.0	38.0	3.20	15.0 m	15 m	VG 95343 T05 D 010 A	32	342-20090
SE28 101.2/51.0-POA-BK	102.0	51.0	3.60	10.0 m	10 m	VG 95343 T05 D 011 A	32	342-20100

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Heat shrinkable tubing up to 4:1 - 1 m lengths

MA47 - medium wall adhesive lined

Insulation and protection of low voltage cable joints and terminations above and below ground.

Features and benefits

- Medium wall tubing with robust insulation characteristics
- Shrink tubing for above and underground cable applications
- Protects cable joints and terminations in low voltage applications
- Internally coated with a thermoplastic adhesive
- Protects against humidity and other environmental impacts



MA47 for above and below ground.

MATERIAL	Polyolefin, cross-linked (PO-X)
Shrink Ratio	up to 4:1
Operating Temperature	-55 °C to +110 °C
Min. Shrink Temperature	+120 °C
Softening Point Adhesive	+85 °C
Longitudinal Change After Shrinkage	-10% max.
Dielectric Strength	15 kV/mm
Insulation Class	A (VDE 0530)

HF ✓

RoHS ✓



Heat Shrink Tubing 4:1 with adhesive



PART DESCRIPTION	Supplied Ø D min.	Recov. Ø d max.	Wall (WT)	Length (L)	Tools	Article-No.
MA47-8/2-PO-X-BK	8.0	2.0	1.80	1.0 m	32	323-20080
MA47-12/3-PO-X-BK	12.0	3.0	1.80	1.0 m	32	323-20120
MA47-19/6-PO-X-BK	22.0	6.0	2.40	1.0 m	32	323-20190
MA47-30/8-PO-X-BK	33.0	8.0	2.60	1.0 m	32	323-20300
MA47-40/12-PO-X-BK	40.0	12.0	2.60	1.0 m	32	323-20400
MA47-50/16-PO-X-BK	55.0	16.0	2.70	1.0 m	32	323-20500
MA47-63/19-PO-X-BK	65.0	19.0	2.90	1.0 m	32	323-20630
MA47-75/22-PO-X-BK	75.0	22.0	3.00	1.0 m	32	323-20750
MA47-95/30-PO-X-BK	95.0	25.0	3.60	1.0 m	32	323-20950
MA47-115/34-PO-X-BK	115.0	34.0	3.50	1.0 m	32	323-21150
MA47-140/42-PO-X-BK	140.0	42.0	3.30	1.0 m	32	323-21400

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Bottle Shapes

Helashrink 100 Series

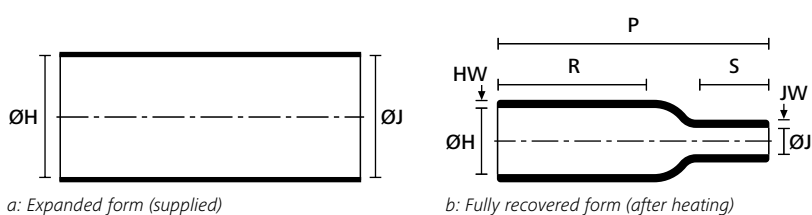
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Strain relief for connector cable
- Easy re-entry for repair when combined with hot melt adhesive



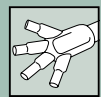
100 series supplied / fully recovered.



PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	HW ± 20 %	JW ± 30 %	S nom.	Tools	Article-No.
104-1-B7W8-PO-X-BK	16.5	7.9	16.5	3.8	25.4	1.3	1.3	6.9	32	401-04004
105-1-B7W8-PO-X-BK	23.4	10.4	23.4	5.6	38.1	1.5	1.5	10.2	32	401-05003
106-1-B7W8-PO-X-BK	31.0	14.2	31.0	6.6	55.4	1.8	1.8	16.5	32	401-06102

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Bottle Shapes, MIL style

Helashrink 100 Series, with rib

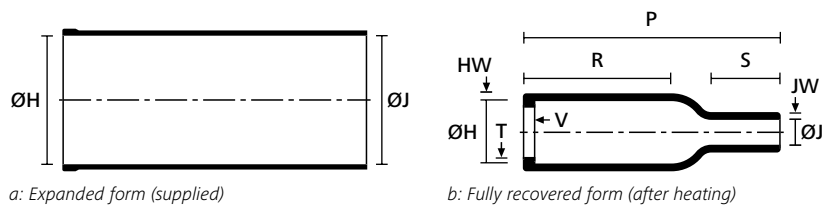
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- With circular grooved adaptor for strain relief
- Combine with complementary adhesives for environmental sealing
- Suitable for small cable diameters



100 series supplied / fully recovered.



PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	HW ± 20%	JW ± 20%	V ± 10%	T ± 20%	S nom.	Tools	Article-No.
104-4-GW24-PO-X-BK	16.5	7.9	16.5	3.8	25.4	-	1.3	1.3	-	1.0	6.9	32	401-04026
104-4-GW8-PO-X-BK	16.5	7.9	16.5	3.8	25.4	-	1.3	1.3	-	1.0	6.9	32	401-04063
104-4-HW8-PO-X-BK	16.5	7.9	16.5	3.8	25.4	-	1.3	1.3	-	1.0	6.9	32	401-04028
	16.5	7.9	16.5	3.8	25.4	-	1.3	1.3	-	1.0	6.9	32	401-04070
105-4-H-PO-X-BK	23.4	10.4	23.4	5.6	38.1	-	1.5	1.5	-	1.0	10.2	32	401-05039
105-4-HW8-PO-X-BK	23.4	10.4	23.4	5.6	38.1	-	1.5	1.5	-	1.0	10.2	32	401-05114
105-4-B7-PO-X-BK	23.4	10.4	23.4	5.6	38.1	-	1.5	1.5	-	1.0	10.2	32	401-05026
105-4-GW8-PO-X-BK	23.4	10.4	23.4	5.6	38.1	-	1.5	1.5	-	1.0	10.2	32	401-05038
106-4-G-PO-X-BK	31.0	14.2	31.0	6.6	55.4	22.9	1.8	1.8	3.0	1.0	10.2	32	401-06036
106-4-B7-PO-X-BK	31.0	14.2	31.0	6.6	55.4	-	1.8	1.8	-	1.0	16.5	32	401-06028
106-4-B7W8-PO-X-BK	31.0	14.2	31.0	6.6	55.4	-	1.8	1.8	-	1.0	16.5	32	401-06035
106-4-GW24-PO-X-BK	31.0	14.2	31.0	6.6	55.4	-	1.8	1.8	-	1.0	16.5	32	401-06038
106-4-GW8-PO-X-BK	31.0	14.2	31.0	6.6	55.4	-	1.8	1.8	-	1.0	16.5	32	401-06039
106-4-HW8-PO-X-BK	31.0	14.2	31.0	6.6	55.4	-	1.8	1.8	-	1.0	16.5	32	401-06110
101-4-B7-PO-X-BK	31.0	17.8	31.0	7.1	67.0	-	2.0	2.0	-	1.0	17.8	32	401-01030
102-4-G-PO-X-BK	36.1	22.4	36.1	8.4	73.7	43.2	1.8	1.8	3.0	1.0	21.0	32	401-02031
102-4-B7-PO-X-BK	36.1	22.4	36.1	8.4	73.7	-	1.8	1.8	-	1.0	21.0	32	401-02024
102-4-B7WM250-PO-X-BK	36.1	22.4	36.1	8.4	73.7	-	1.8	1.8	-	1.0	21.0	32	401-02029
103-4-B7-PO-X-BK	42.7	28.2	42.7	9.9	99.1	-	2.0	2.0	-	1.7	24.0	32	401-03032
107-4-B7-PO-X-BK	51.9	35.1	51.9	15.8	124.5	-	3.1	3.1	-	1.7	40.6	32	401-07025

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Bottle Shapes, VG style

Helashrink 150 Series, with rib

Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

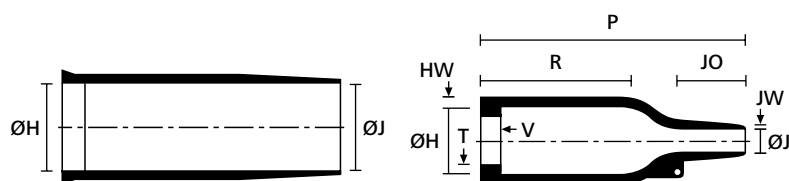
- Use in conjunction with circular grooved adaptors
- Strengthened strain relief by usage of an additional inner lip
- Excellent protection against environment impacts
- Eliminates moisture ingress to harness



150 Series boot recovered onto a connectors.



150 Series supplied.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	JO ± 10%	HW ± 20%	JW ± 20%	V ± 10%	V max.	T ± 20%	Designation as per VG-Norm	Tools	Article-No.
152-42-GW24-PO-X-BK	24.0	10.5	24.0	6.0	38.0	21.0	20.0	1.6	0.5	3.0	3.3	1.0	VG 95343 T18 B 001 A	32	401-52884
152-42-GW8-PO-X-BK	24.0	10.5	24.0	6.0	38.0	21.0	-	1.6	0.5	3.0	3.3	1.0	-	32	401-52020
152-42-G-PO-X-BK	24.0	10.5	24.0	6.0	38.0	21.0	-	1.6	0.5	3.0	3.3	1.0	-	32	401-52043
152-42-B7-PO-X-BK	24.0	10.5	24.0	6.0	38.0	21.0	-	1.6	0.5	3.0	3.3	1.0	-	32	401-52008
152-42-HW8-PO-X-BK	24.0	10.5	24.0	6.0	38.0	21.0	-	1.6	0.5	3.0	3.3	1.0	-	32	401-52022
153-42-G-PO-X-BK	25.0	14.0	9.0	3.5	55.0	28.0	16.0	1.8	0.5	3.0	3.3	1.0	VG 95343 T06 B 002 A	32	401-53880
154-42-H-PO-X-BK	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.0	3.3	1.0	-	32	401-54017
154-42-B7-PO-X-BK	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.0	3.3	1.0	-	32	401-54820
154-42-GW8-PO-X-BK	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.0	3.3	1.0	-	32	401-54016
154-42-G-PO-X-BK	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.0	3.3	1.0	-	32	401-54045
154-42-GW24-PO-X-BK	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.0	3.3	1.0	-	32	401-54047
	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.0	3.3	1.0	VG 95343 T18 B 003 A	32	401-54884

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Bottle Shapes, VG style

Helashrink 150 Series, with rib

PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	JO ± 10 %	HW ± 20 %	JW ± 20 %	V ± 10 %	V max.	T ± 20 %	Designation as per VG-Norm	Tools	Article-No.
154-42-GWM250-PO-X-BK	30.0	14.0	30.0	6.0	55.0	32.0	13.0	1.8	1.0	3.0	3.3	1.0	-	32	401-54885
155-42-HW17-PO-X-BK	31.0	10.5	24.0	6.0	67.0	35.0	18.0	1.8	1.0	-	3.3	1.0	-	32	401-55030
155-42-B7W8-PO-X-BK	31.0	10.5	24.0	6.0	67.0	35.0	18.0	1.8	1.0	-	3.3	1.0	-	32	401-55009
155-42-GW8-PO-X-BK	31.0	10.5	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.0	3.3	1.0	-	32	401-55017
155-42-G-PO-X-BK	31.0	10.5	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.0	3.3	1.0	-	32	401-55043
155-42-GW24-PO-X-BK	31.0	10.5	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.0	3.3	1.0	-	32	401-55045
155-42-GWM250-PO-X-BK	31.0	10.5	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.0	3.3	1.0	-	32	401-55886
155-42-G-PO-X-BK	31.0	18.0	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.0	3.3	1.0	VG 95343 T06 B 004 A	32	401-55880
155-42-B7-PO-X-BK	31.0	18.0	31.0	7.0	67.0	35.0	18.0	1.8	1.0	3.0	3.3	1.0	-	32	401-55820
156-42-GW24-PO-X-BK	36.0	22.5	36.0	8.5	80.0	42.0	20.0	2.0	1.0	3.0	3.3	1.0	-	32	401-56019
156-42-G-PO-X-BK	36.0	22.5	36.0	8.5	80.0	42.0	20.0	2.0	1.0	3.0	3.3	1.0	VG 95343 T06 B 005 A	32	401-56880
156-42-GWM250-PO-X-BK	36.0	22.5	36.0	8.5	80.0	42.0	20.0	2.0	1.0	3.0	3.3	1.0	-	32	401-56885
156-42-HW8-PO-X-BK	36.0	22.5	36.0	8.5	80.0	42.0	20.0	2.0	1.0	3.0	3.3	1.0	-	32	401-56023
157-43-B7-PO-X-BK	43.0	28.0	43.0	10.0	99.0	61.0	20.0	2.2	1.0	3.0	3.3	1.7	-	32	401-57022
157-43-HW8-PO-X-BK	43.0	28.0	43.0	10.0	99.0	61.0	-	2.2	1.0	3.0	3.3	1.7	-	32	401-57034
157-43-GW24-PO-X-BK	43.0	28.0	43.0	10.0	99.0	61.0	-	2.2	1.0	3.0	3.3	1.7	-	32	401-57030
157-43-GW8-PO-X-BK	43.0	28.0	43.0	10.0	99.0	61.0	-	2.2	1.0	3.0	3.3	1.7	-	32	401-57031
157-43-G-PO-X-BK	43.0	28.0	43.0	10.0	99.0	61.0	-	2.2	1.0	3.0	3.3	1.7	-	32	401-57059
158-43-H-PO-X-BK	60.0	35.0	60.0	16.0	130.0	-	-	3.2	1.0	-	3.3	1.7	-	32	401-58021
158-43-HW17-PO-X-BK	60.0	35.0	60.0	16.0	130.0	-	-	3.2	1.0	-	3.3	1.7	-	32	401-58022
159-43-B7-PO-X-BK	66.0	45.0	-	17.0	171.0	-	-	3.8	-	3.0	-	2.0	-	32	401-59006

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Bottle Shapes, VG style

Helashrink 170 Series, with rib

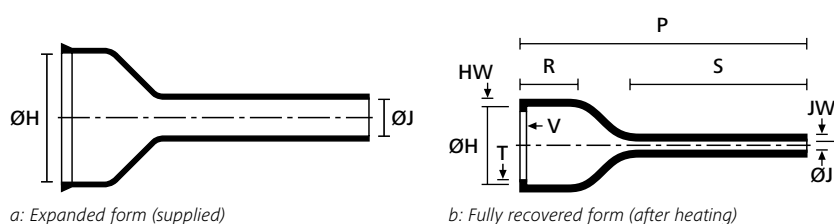
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Cable strain relief for partially loaded connectors
- Small cable diameters
- Use with our W24 adhesive for excellent chemical resistance



177-1-G supplied / fully recovered.



PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	T ± 20%	HW ± 20%	JW nom.	V max.	S nom.	Tools	Article-No.
177-1-G-PO-X-BK	26.1	19.1	7.6	2.6	74.2	12.2	1.0	1.8	1.1	3.3	45.0	32	401-77023

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



2-Way Outlet Shapes, Breakout Boots

Helashrink 200 Series, in line, low voltage

Cable breakouts are manufactured from a tough cross-linked flame retarded polyolefin. This allows the breakouts to be used for both interior and exterior applications. They offer excellent electrical and mechanical protection.

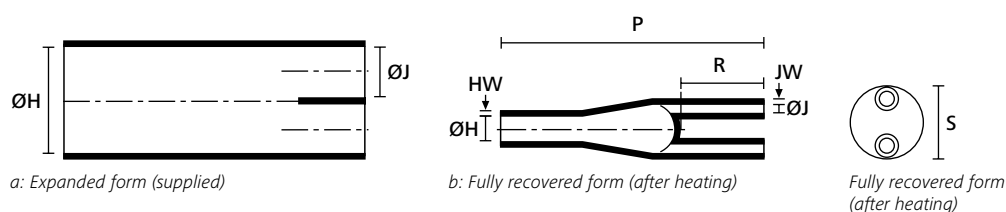
Cable breakouts are supplied with an adhesive inner coating for reliable environmental sealing, and are available for 2, 3, 4, 5 and 6 core cables.

Features and benefits

- Easy, time-saving insulation of cable branch point where it splits into single wires
- Adhesive is applied to relieve mechanical tension in cable harnesses



223-2 supplied / fully recovered.



PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	HW ± 20%	JW ± 20%	S nom.	Tools	Article-No.
223-2-B8HTW-PO-X-BK	33.0	9.4	17.5	4.1	94.0	30.0	1.5	1.2	20.0	32	402-23041
223-2-B8W-PO-X-BK	33.0	9.4	17.5	4.1	94.0	30.0	1.5	1.2	20.0	32	402-23058

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



2-Way Outlet Shapes, VG style

Helashrink 200 Series

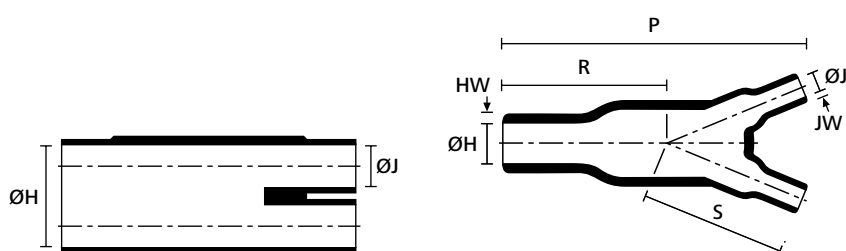
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Mechanical tension relief in cable harnesses



203-1 supplied / fully recovered.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

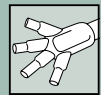
PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	HW ± 20%	JW ± 30%	JW nom.	Tools	S nom.	Designation as per VG-Norm	Article-No.
206-1-B7WM250-PO-X-BK	13.0	6.0	7.0	3.0	41.0	19.0	1.5	1.0	1.0	32	19.0	-	402-06005
206-1-GW8-PO-X-BK	13.0	6.0	7.0	3.0	41.0	19.0	1.5	1.0	1.0	32	19.0	-	402-06010
206-1-G-PO-X-BK	13.0	6.0	7.0	3.0	41.0	19.0	1.5	1.0	1.0	32	19.0	-	402-06036
206-1-GWM250-PO-X-BK	13.0	6.0	7.0	3.0	41.0	19.0	1.5	1.0	1.0	32	19.0	-	402-06185
206-1-H-PO-X-BK	13.0	6.0	7.0	3.0	41.0	19.0	1.5	1.0	1.0	32	19.0	-	402-06011
203-1-G-PO-X-BK	27.0	12.0	13.0	6.0	80.0	38.0	2.5	-	1.5	32	43.0	VG 95343 T08 C 002 A	402-03180
203-1-H-PO-X-BK	27.0	12.0	13.0	6.0	80.0	43.0	2.5	-	1.5	32	43.0	-	402-03015
203-1-B7WM250-PO-X-BK	27.0	12.0	13.0	6.0	80.0	43.0	-	-	1.5	32	43.0	-	402-03008
203-1-GW8-PO-X-BK	27.0	12.0	13.0	6.0	80.0	43.0	-	-	1.5	32	43.0	-	402-03012
203-1-G-PO-X-BK	27.0	12.0	13.0	6.0	80.0	43.0	-	-	1.5	32	43.0	-	402-03035
204-1-B7WM250-PO-X-BK	39.0	18.0	27.0	12.0	131.0	66.0	-	-	2.0	32	81.0	-	402-04003

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



3-Way Outlet Shapes, Breakout Boots

Helashrink 300 Series, in line, low voltage

Cable breakouts are manufactured from a tough cross-linked polyolefin containing a flame retardant. This allows the breakouts to be used for both interior and exterior applications. They offer excellent electrical and mechanical protection.

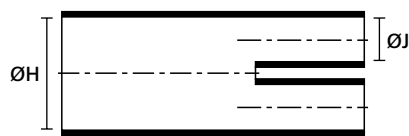
Cable breakouts are supplied with an adhesive inner coating for reliable environmental sealing, and are available for 2, 3, 4, 5 and 6 core cables.

Features and benefits

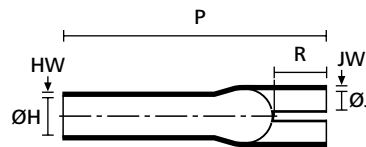
- Easy, time-saving insulation of cable branch point where it splits into single wires
- Adhesive is applied to relieve mechanical tension in cable harnesses



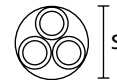
300 Series supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)



Fully recovered form (after heating)

PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 20 %	Tools	Article-No.
354-1-B8W-PO-X-BK	45.0	10.0	16.0	4.0	100.0	25.0	3.0	2.0	32	403-54004

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



3-Way Outlet Shapes, VG style

Helashrink 300 Series

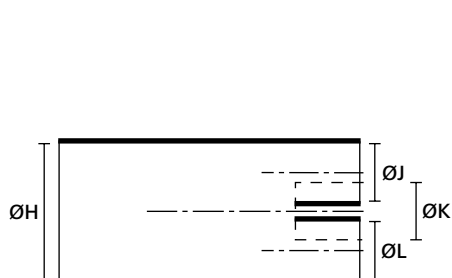
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

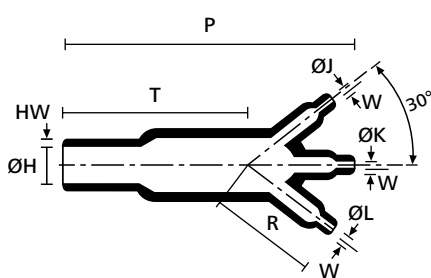
- Cable strain relief and mechanical protection at harness transition points
- All outlets clearly marked to aid orientation during installation



304-1-G supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

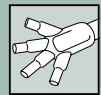
PART DESCRIPTION	ØH min. a	ØH max. b	ØJ/K/L min. a	ØJ/K/L max. b	P ± 10%	R ± 10%	HW ± 20%	HW ± 30%	W ± 20%	T ± 10%	Designation as per VG-Norm	Tools	Article-No.
306-1-G-PO-X-BK	13.0	6.5	6.5	3.5	46.0	21.0	-	1.5	1.0	20.3	VG 95343 T08 D 001 A	32	403-06180
306-1-B7WM250-PO-X-BK	13.0	6.5	6.5	3.5	46.0	25.0	1.5	1.5	1.0	21.0	-	32	403-06005
306-1-GW8-PO-X-BK	13.0	6.5	6.5	3.5	46.0	25.0	1.5	1.5	1.0	21.0	-	32	403-06009
304-1-B7WM250-PO-X-BK	27.0	13.5	13	7.0	93.0	50.0	2.5	-	1.5	43.0	-	32	403-04006
304-1-GW8-PO-X-BK	27.0	13.5	13	7.0	93.0	50.0	2.5	-	1.5	43.0	-	32	403-04011

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



4-Way Outlet Shapes, Breakout Boots

Helashrink 400 Series, in line, low voltage

Cable breakouts are manufactured from a tough cross-linked flame retarded polyolefin. This allows the breakouts to be used for both interior and exterior applications. The adhesive liner offers excellent electrical and mechanical protection and are available for 2, 3, 4, 5 and 6 core cables.

Features and benefits

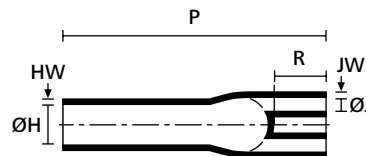
- Easy, time-saving insulation of cable branch point where it splits into single wires
- Made of tough, cross-linked, Polyolefin
- Adhesive is applied to relieve mechanical tension in cable harnesses



400 series supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)



Fully recovered form (after heating)

PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10%	HW ± 20%	JW ± 20%	S nom.	Tools	Article-No.
408-2-B8W2-PO-X-BK	35.0	12.0	15.0	3.0	95.0	24.0	2.5	2.0	22.0	32	404-08022
408-2-B8HTW2-PO-X-BK	35.0	12.0	15.0	3.0	95.0	24.0	2.5	2.0	22.0	32	404-08042
408-2-HW21-PO-X-BK	35.0	12.0	15.0	3.0	95.0	24.0	2.5	2.0	22.0	32	404-08074

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



6-Way Outlet Shapes, Breakout Boots

Helashrink 600 Series, in line, low voltage

Cable breakouts are manufactured from a tough cross-linked polyolefin containing a flame retardant. This allows the breakout to be used for both interior and exterior applications. they offer excellent electrical and mechanical protection.

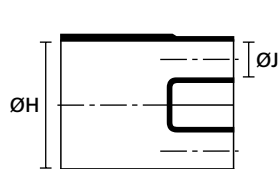
Cable breakouts are supplied with an adhesive inner coating for reliable environmental sealing, and are available for 2,3,4,5 and 6 conductor cables.

Features and benefits

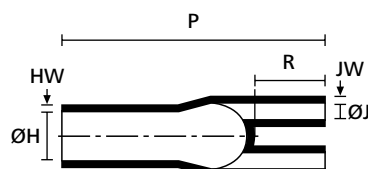
- Cable breakout boots for insulating and sealing cable crotch or conduit system
- Excellent resistance to abrasion and weathering



600 Series supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

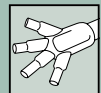


Fully recovered form (after heating)

PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 20 %	S nom.	Tools	Article-No.
609-2-HW1-PO-X-BK	40.0	16.0	12.0	4.0	75.0	20.0	2.5	1.5	25.0	32	406-06034

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Right-Angle Shapes, VG style

Helashrink 1100 Series, with rib

Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

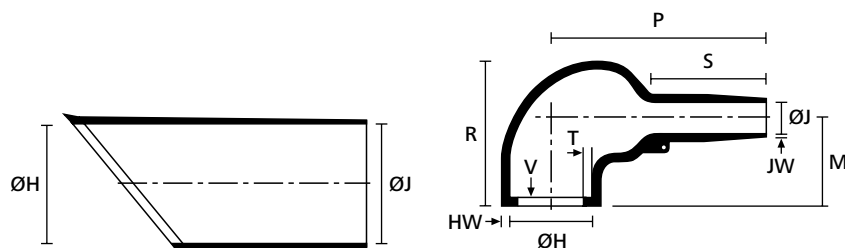
- Used in conjunction with a circular grooved adaptor
- Provides strain relief and an environmental seal



1152-4-G recovered onto a connector.



1155-4 supplied.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

PART	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 20 %	V ± 10 %	V max.	T ± 20 %	M nom.	Tools	S nom.	Designation as per VG-Norm	Article-No.
1152-4-B7W8- PO-X-BK	24.0	10.5	24.0	6.0	-	25.0	1.3	-	-	3.3	1.0	19	32	10.0	-	411-52003
1152-4-G-PO- X-BK	24.0	10.5	24.0	6.0	-	25.0	1.3	0.5	3.0	3.3	1.0	19	32	10.0	-	411-52022
1152-4-HW17- PO-X-BK	24.0	10.5	24.0	6.0	-	25.0	1.3	-	-	-	1.0	19	32	10.0	-	411-52034
1154-4-B7-PO- X-BK	30.0	14.5	30.0	6.0	32.0	27.0	1.5	0.8	3.0	3.3	1.0	19	32	12.0	-	411-54001
1154-4-G-PO- X-BK	30.0	14.5	30.0	6.0	32.0	27.0	1.5	0.8	3.0	3.3	1.0	19	32	12.0	-	411-54025
1154-4-GW24- PO-X-BK	30.0	14.5	30.0	6.0	32.0	27.0	1.5	0.8	3.0	3.3	1.0	19	32	12.0	-	411-54026
1154-4-G-PO- X-BK	30.0	14.5	30.0	6.0	41.0	27.0	1.5	1.5	-	3.3	1.0	19.0	32	12.0	VG 95343 T06 E 002 A	411-54480
1154-4-B7W8- PO-X-BK	30.0	14.5	30.0	6.0	-	27.0	1.5	-	-	3.3	-	19	32	12.0	-	411-54004

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.

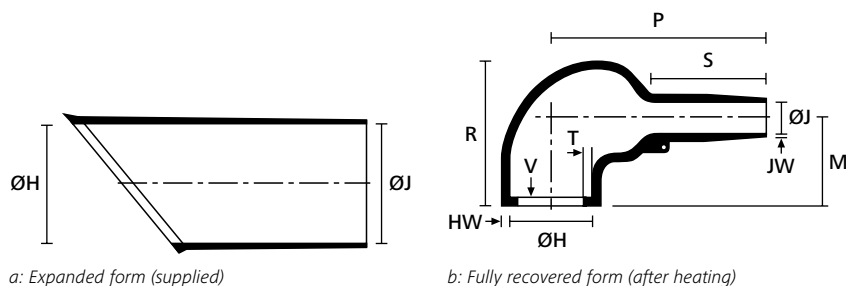


Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Right-Angle Shapes, VG style

Helashrink 1100 Series, with rib



a: Expanded form (supplied)

b: Fully recovered form (after heating)

PART	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10 %	R ± 10 %	HW ± 20 %	JW ± 20 %	V ± 10 %	V max.	T ± 20 %	M nom.	Tools	S nom.	Designation as per VG-Norm	Article-No.
1154-4-HW17- PO-X-BK	30.0	14.5	30.0	6.0	-	27.0	1.5	-	-	1.0	-	19	32	12.0	-	411-54042
1155-4-GW8- PO-X-BK	31.0	18.0	31.0	7.0	40.0	31.0	1.8	1.0	3.0	3.3	1.0	21	32	15.0	-	411-55013
1155-4-G-PO- X-BK	31.0	18.0	31.0	7.0	51.0	31.0	1.8	1.0	-	3.3	1.0	21.0	32	15.0	VG 95343 T06 E 003 A	411-55480
	31.0	18.0	31.0	7.0	-	31.0	1.8	-	-	3.3	1.0	21	32	15.0	-	411-55016
1156-4-GW8- PO-X-BK	36.0	22.5	36.0	8.5	46.0	38.0	1.8	1.0	3.0	3.3	1.0	26	32	15.0	-	411-56011
1156-4-G-PO- X-BK	36.0	22.5	36.0	8.5	59.0	38.0	1.8	1.0	-	3.3	1.0	26.0	32	15.0	VG 95343 T06 E 004 A	411-56480
	36.0	22.5	36.0	8.5	-	38.0	1.8	-	-	3.3	1.0	26	32	15.0	-	411-56015
1157-4-G-PO- X-BK	43.0	28.5	43.0	10.0	55.0	45.0	2.0	1.0	3.0	3.3	1.7	30	32	16.0	-	411-57020
1157-4-B7-PO- X-BK	43.0	28.5	43.0	10.0	-	45.0	2.0	-	-	3.3	1.7	30	32	16.0	-	411-57001
1157-4-B7W8- PO-X-BK	43.0	28.5	43.0	10.0	-	45.0	2.0	-	-	3.3	1.7	30	32	16.0	-	411-57003

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Right-Angle Shapes, MIL style

Helashrink 1100 Series, with rib

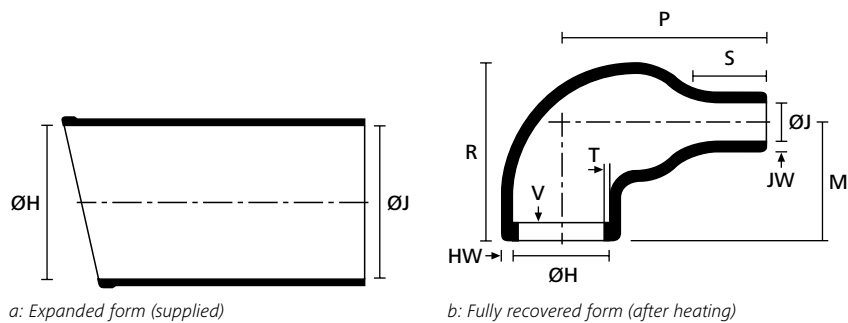
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Used in conjunction with a circular grooved adaptor for strain relief



1108-4 supplied / fully recovered.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

PART DESCRIPTION	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	P ± 10%	R ± 10 %	HW ± 20 %	JW ± 30 %	V max.	T ± 20 %	M nom.	S nom.	Tools	Article-No.
1108-4-HW8-PO-X-BK	16.5	7.9	16.5	2.5	18.3	20.1	1.0	1.6	3.3	1.0	15.2	5.1	32	411-08049
	16.5	7.9	16.5	2.5	18.3	20.1	1.0	1.6	3.3	1.0	15.2	5.1	32	411-08051
1108-4-GW8-PO-X-BK	16.5	7.9	16.5	3.8	20.1	20.1	1.0	1.6	3.3	1.0	15.2	5.1	32	411-08043
1106-4-HW8-PO-X-BK	23.3	10.4	23.3	5.6	20.3	22.9	1.3	1.3	3.3	1.0	15.2	5.8	32	411-06068
1107-4-HW8-PO-X-BK	28.4	14.2	28.4	6.3	29.8	28.5	1.5	1.5	3.3	1.0	21.4	7.1	32	411-07070

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



T-Shapes, VG style/MIL style

Helashrink 1200 Series

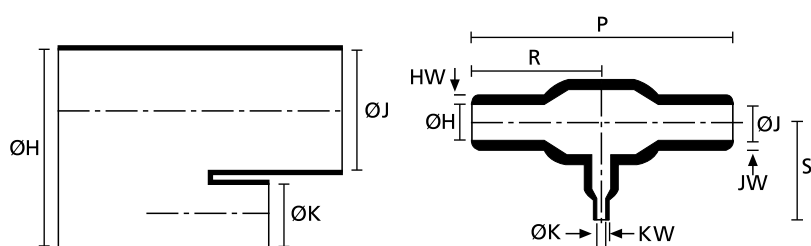
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Strain relief, sealing and mechanical protection on cable harnesses



1202-1-G recovered onto a cable harness.



a: Expanded form (supplied)

b: Fully recovered form (after heating)

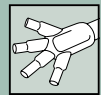
PART DESCRIPTION	ØH/J min. a	ØH/J max. b	ØK min. a	ØK max. b	P ± 10%	R ± 10%	HW ± 20%	JW ± 20%	JW ± 30%	Tools	S ± 10%	KW ± 20%	Designation as per VG-Norm	Article-No.
1209-1-G-PO-X-BK	-	-	13.2	6.0	108.0	54.0	2.5	2.5	2.5	32	38.6	1.5	-	412-09018
1202-1-B7W8-PO-X-BK	-	-	13.2	6.1	58.7	29.2	1.5	1.5	1.5	32	29.2	1.5	-	412-02002
1207-1-B7W8-PO-X-BK	-	-	26.9	12.4	120.1	55.9	2.5	2.5	2.5	32	55.9	2.5	-	412-07005
1207-1-G-PO-X-BK	-	-	26.9	12.4	120.1	55.9	2.5	2.5	2.5	32	55.9	2.5	-	412-07023
1202-1-G-PO-X-BK	13.0	7.0	13.0	7.0	59.0	29.5	1.5	1.5	1.5	32	29.2	1.5	VG 95343 T08 A 010 A	412-02180

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Angled T-Shapes, VG style

Helashrink 1300 Series, 30° & 45° angle

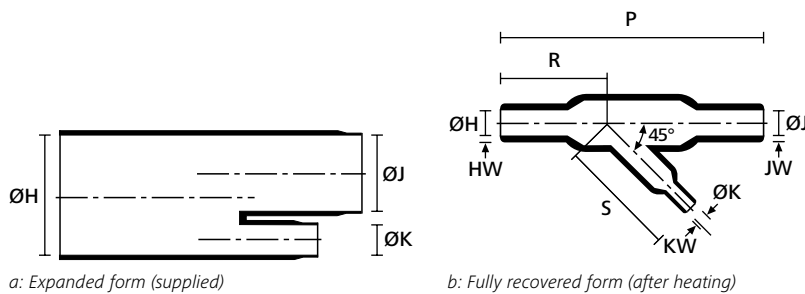
Heat Shrinkable moulded shapes for use in Electrical and Electronic Cable Harness Applications.

Features and benefits

- Strain relief, sealing and mechanical protection on cable harnesses
- Branching part 30° & 45° Y-joint
- Mechanical strain relief for cable harnesses



1303-1-G supplied / fully recovered.



PART	ØH min. a	ØH max. b	ØJ min. a	ØJ max. b	ØK min. a	ØK max. b	P ± 10%	R ± 10%	HW ± 30%	JW ± 30%	KW ± 20%	S ± 10%	Angle	Designation as per VG-Norm	Tools	Article-No.
1311-1-GW24- PO-X-BK	30.4	15.0	30.4	15.0	20.3	10.0	82.6	32.0	2.5	2.5	1.8	51.0	30°	-	32	413-11011
1311-1-G-PO- X-BK	30.4	15.2	30.4	15.2	20.3	10.2	82.6	31.8	2.5	2.5	1.8	50.8	30°	VG 95343 T08 B 003 A	32	413-11180
1311-1-HW8- PO-X-BK	30.4	15.2	30.4	15.2	20.3	10.2	82.6	31.8	-	-	1.8	50.8	30°	-	32	413-11028

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.
All dimensions in mm. Subject to technical changes.



Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Low Profile Transition Boots

Helashrink 412H Series, side breakout

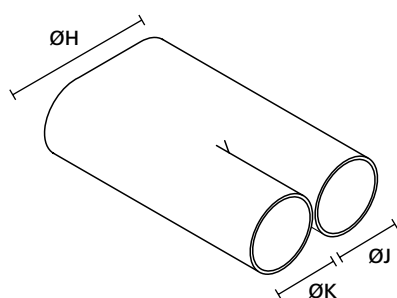
Heat Shrinkable Moulded Shapes for use in Electrical and Electronic Cable Harness Applications

Features and benefits

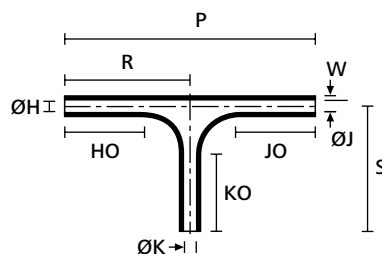
- Connector cable strain relief
- Used with circular adaptors



412H622-625 Series supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

PART DESCRIPTION	ØH min. a	ØH max. b	HO/JO/KO ± 10%	W nom.	R/S nom.	Tools	Article-No.
412H622-7-PO-X-BK	19.8	6.6	25.4	1.0	40.3	32	422-40031

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Low Profile Transition Boots

Helashrink 492H Series, 1 to 2 cables

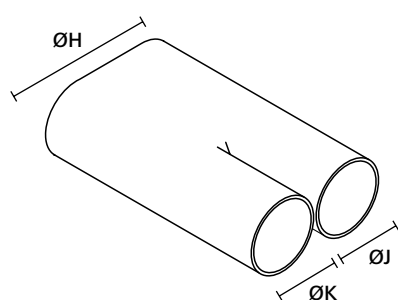
Military and general performance harnessing.

Features and benefits

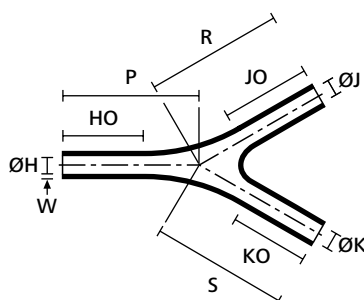
- For cable harness breakouts or transitions
- Strain relief, sealing and mechanical protection



492H412-415 Series supplied / fully recovered.



a: Expanded form (supplied)



b: Fully recovered form (after heating)

PART DESCRIPTION	ØH min. a	ØH max. b	ØJ/K min. a	ØJ/K max. b	HO/JO/KO ± 15%	W nom.	P/R/S nom.	Tools	Article-No.
492H413-9-PO-X-BK	34.2	11.4	22.8	11.4	41.1	1.3	62.9	32	422-50101

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Hot Melt Tape for Heat Shrinkable Tubing and Shapes

HMT200A

Designed for use with heat shrink sleeving and mouldings.

Features and benefits

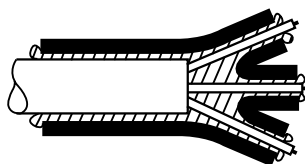
- Hot melt tape flows when heated to seal against moisture
- For heat shrink tubing and mouldings



HMT200A-Tape.



Adhesive tape HMT200A for sealing against humidity.



HMT200A in combination with unlined heat shrinkable shapes

PART DESCRIPTION	Thickness (T)	Width (W)	Reel Length	Tools	Article-No.
HMT200A-EVA-CL	0.25	25.0	10 m	32	354-02260
	0.25	25.0	50 m	32	354-02259

Recommended Tools: 32=CHG900. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.



Two-Component Adhesive for Heat Shrinkable Tubing and Shapes

V9500

Features and benefits

- High performance, two-part epoxy adhesive
- Very resistant to most solvents and fuels, even at elevated temperatures
- Two different packages available
- V9500 available in 10g sachets for manual mixing
- Processing set: emery paper, small mixing bowl and wooden spatula
- High performance bonding
- Meets military requirements for heat shrinkable components for harnesses



Two-component epoxy adhesive V9500.



The V9500 applicator gun guarantees the clean and precise coating of special fittings.

PART DESCRIPTION	Description	Designation as per VG-Norm	Article-No.
V9500NOZZLE-N10-PO-CL	-	VG 95343 T15 MA	627-95011
V9500 Epoxy Kit-EP-BK/GY	5 x 10g sachets (50g), 5 x mixing pots, 5 x mixing sticks, 5 x emery papers	-	627-95000
V9500 Epoxy Kit-EP-BK	1 x dual cartridge, 5 x mixing pots, 5 x mixing sticks, 5 x emery papers	VG 95343 T15 A 002 B	627-95001
V9500 Epoxy Cartridge-EP-BK	Two-component adhesive cartridge	-	627-95002
V9500 Applicator Gun-PO-GY	Applicator gun	VG 95343 T15 DA	627-95003

All dimensions in mm. Subject to technical changes.



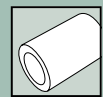
Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Discover the diversity of our heat shrink tubing for your individual automotive needs!

HellermannTyton uses high quality materials to ensure long lasting performance under extreme conditions. Our products provide reliable insulation and protection for your cables and wires, perfectly suited to your specific application requirements.

MADE FOR REAL 





Chloroprene tubing and grommets

Helsyn H

The chloroprene tubings are ideally suited to rigorous environments such as automotive, aerospace, mass transit and defence markets. As the material is highly elastic, it's original size can be expanded 500% on application and 200% in continuous use. To save time and effort when fitting the tubing, try the HellermannTyton three prong tools and the Hellerine lubricant, which are specially designed for use with HellermannTyton chloroprene tubing.

Features and benefits

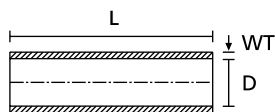
- Highly elastic, easy to fit chloroprene tubing
- Withstands up to 120 °C intermittent temperature
- Covers many cable diameters with one size
- Available in cut lengths



H rubber tubing is highly flexible and easy to apply.

MATERIAL	Chloroprene Rubber (CR)	
Operating Temperature	-65 °C to +95 °C, intermittent +120 °C	
Flammability	UL 94 HB	UL 94 HB, FMVSS 302
Elongation at break (min.)	500 %	

RoHS ✓



Chloroprene tubing



PART DESCRIPTION	Supplied Ø D min.	Wall (WT)	Bundle Ø max.	Length (L)	Pack Cont.	Tools	Article-No.
H30X25BK-CR-BK	3.0	0.80	6.0	25.0	1000 pcs.	37;39	600-02938
H75X30BK-CR-BK	7.5	1.25	13.0	30.0	250 pcs.	37-40	600-02198

Recommended Tools: 36=NA1K/3, 39=VA2.5/5. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.

Helsyn H

PART DESCRIPTION	Supplied Ø D min.	Wall (WT)	Bundle Ø max.	Pack Cont.	Tools	Article-No.
H50 tubing-CR-YE	5.0	1.05	9.0	500 pcs.	36;39	600-02005
H75 tubing-CR-PK	7.5	1.25	13.0	-	39-40	608-01115

Recommended Tools: 36=NA1K/3, NA4/5, 39=VA2.5/5. For more information on toolings please refer to the Application Tooling chapter on page 308.

All dimensions in mm. Subject to technical changes.

DEF STAN

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Chloroprene tubing and grommets

Helsyn TH - thin wall

The chloroprene tubings are ideally suited to rigorous environments such as automotive, aerospace, mass transit and defence markets.

As the material is highly elastic, it's original size can be expanded 500% on application and 200% in continuous use.

To save time and effort when fitting the tubing, try the HellermannTyton NA three prong tools (see Chapter 6.3) and the Hellerine lubricant (see end of Chapter 2.3), which are specially designed for use with HellermannTyton chloroprene tubing.



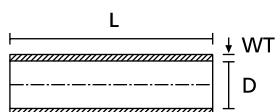
H rubber tubing is highly flexible and easy to apply.

Features and benefits

- Highly elastic, easy to fit chloroprene tubing
- Withstands up to 120°C intermittent temperature
- Covers many cable diameters with one size
- Available in cut lengths

MATERIAL	Chloroprene Rubber (CR)
Operating Temperature	-65 °C to +95 °C, intermittent +120 °C
Flammability	UL 94 HB
Elongation at break (min.)	500 %

RoHS ✓



Chloroprene tubing

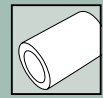


PART DESCRIPTION	Wall (WT)	Bundle Ø max.	Pack Cont.	Article-No.
TH20 tubing-CR-PK	0.60	3.5	1000 pcs.	600-02375

All dimensions in mm. Subject to technical changes.

DEF STAN

Please note: Some or all of the products listed here have these approvals, or have one or more sustainable attributes. Please see our website for the latest details.



Installation aid for tubing and grommets

Hellerine

Hellerine lubricant for tubing and grommets installations.

Features and benefits

- Effective aid for affixing elastomer sleeves
- Universally employable
- Evaporates after installation
- Consists of 99% vegetable oils
- Discoloration-free
- Offered in 250 ml bottle or in cans of 5 l or 20 l



Hellerine lubricant in 250 ml plastic bottle.

PART DESCRIPTION	Description	Article-No.
HELLERINE 0.25 LITER-CL	Hellerine assembly aid, 0.25 liter	625-00250
Hellerine M 284 ml	Hellerine assembly aid, 0.284 liter	625-00001
HELLERINE 5 LITER-CL	Hellerine assembly aid, 5 liter	625-05000
HELLERINE 20 LITER-CL	Hellerine assembly aid, 20 liter	625-06000

All dimensions in mm. Subject to technical changes.