

Official European Distributor of
Hongshang

WKK: European importer and distributor of Hongshang heat shrink tubing

Since 2010, WKK has been an authorized importer and distributor of heat shrink tubing and accessories from the Asian quality brand Hongshang. This gives WKK the opportunity to offer European customers an extensive range of heat shrinkable products such as thin-wall / dual-wall / special / medium-wall and heavy-wall heat shrink tubing, and busbar insulation tubing. In short, WKK's Hongshang Polyolefin heat shrink tubing offers you a solution for many different applications.

HEAT SHRINK TUBING

H-2(Z) Thin-wall heat shrink tubing / flexible / flame retardant / 2:1

- Features:**
- Crosslinked Polyolefin
 - Shrink ratio: 2:1
 - Flame retardant
 - General purpose
 - High flexibility

- Approvals:**
- UL224 125 °C VW-1 600 V file E204071
 - CSA file no.: 1934614
 - Meets: RoHS, Sony-SS-00259

- Application:**
- Operating temperature: -55 °C to +125 °C
 - Minimum shrink temperature: +70 °C
 - Minimum full recovery temperature: +100 °C
 - Longitudinal change: 0 ± 10% max.

- Order information:**
- Colors: black, red, blue, yellow, green, white, purple, brown
 - Other colors are available on request
 - Also available in various lengths and in mini boxes (please see page 38)



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-2(Z) 1,2/0,6	1,2	0,6	0,33	150
H-2(Z) 1,6/0,8	1,6	0,8	0,36	150
H-2(Z) 2,4/1,2	2,4	1,2	0,44	150
H-2(Z) 3,2/1,6	3,2	1,6	0,44	150
H-2(Z) 4,8/2,4	4,8	2,4	0,51	75
H-2(Z) 6,4/3,2	6,4	3,2	0,56	75
H-2(Z) 9,5/4,8	9,5	4,8	0,56	75
H-2(Z) 12,7/6,4	12,7	6,4	0,65	50
H-2(Z) 16,0/8,0	16,0	8,0	0,69	50
H-2(Z) 19,0/9,5	19,0	9,5	0,80	30
H-2(Z) 25,4/12,7	25,4	12,7	0,90	30
H-2(Z) 32,0/16,0	32,0	16,0	0,90	30
H-2(Z) 38,1/19,0	38,1	19,0	1,00	30
H-2(Z) 50,8/25,4	50,8	25,4	1,00	30
H-2(Z) 76,2/38,1	76,2	38,1	1,20	15
H-2(Z) 102,0/50,8	102,0	50,8	1,30	15
H-2(Z) 126,0/63,5	126,0	63,5	1,30	15
H-2(Z) 150,0/76,0	150,0	76,0	1,30	15

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-2(3X) Thin-wall heat shrink tubing / flexible / flame retardant / 3:1

- Features:**
- Crosslinked Polyolefin
 - Shrink ratio: 3:1
 - Flame retardant
 - General purpose
 - High flexibility

- Approvals:**
- UL224 125 °C VW-1 600 V file E204071
 - CSA file no.: 1934614
 - Meets: RoHS, Sony-SS-00259

- Application:**
- Operating temperature: -55 °C to +125 °C
 - Minimum shrink temperature: +70 °C
 - Minimum full recovery temperature: +100 °C
 - Longitudinal change: 0 ± 10% max.

- Order information:**
- Color: black
 - Other colors: red, blue, yellow, green, white, transparent (flame retardant class 2)
 - Also available in mini boxes (please see page 39)



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-2(3X) 1,5/0,5	1,5	0,5	0,45	150
H-2(3X) 3,0/1,0	3,0	1,0	0,55	150
H-2(3X) 4,5/1,5	4,8	1,5	0,60	75
H-2(3X) 6,0/2,0	6,4	2,0	0,65	75
H-2(3X) 9,0/3,0	9,5	3,0	0,75	75
H-2(3X) 12,0/4,0	12,7	4,0	0,80	50
H-2(3X) 18,0/6,0	19,1	6,0	0,90	30
H-2(3X) 24,0/8,0	25,4	8,0	1,00	30
H-2(3X) 39,0/13,0	39,0	13,0	1,25	30

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-2F

Thin-wall heat shrink tubing / flexible / flame retardant / 2:1 / mil spec 135 degrees

Features:

- Crosslinked Polyolefin
- Shrink ratio: 2:1
- Flame retardant
- High flexibility

Approvals:

- UL224 125 °C VW-1 600 V file E204071
- CSA file no.: 1934614
- Meets: RoHS, Sony-SS-00259
- Meets: SAE-AMS-DTL-23053/5 class 1 and 3

Application:

- Operating temperature: -55 °C to +135 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +100 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black
- Other colors: red, blue, yellow, green, white, transparent (flame retardant class 2, size available up to 76,2 mm)



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-2F 1,2/0,6	1,2	0,6	0,40	150
H-2F 1,6/0,8	1,6	0,8	0,40	150
H-2F 2,4/1,2	2,4	1,2	0,48	150
H-2F 3,2/1,6	3,2	1,6	0,48	150
H-2F 4,8/2,4	4,8	2,4	0,48	75
H-2F 6,4/3,2	6,4	3,2	0,56	75
H-2F 9,5/4,8	9,5	4,8	0,62	75
H-2F 12,7/6,4	12,7	6,4	0,62	50
H-2F 16,0/8,0	16,0	8,0	0,68	50
H-2F 19,0/9,5	19,0	9,5	0,68	30
H-2F 25,4/12,7	25,4	12,7	0,87	30
H-2F 32,0/16,0	32,0	16,0	1,00	30
H-2F 38,1/19,0	38,1	19,0	1,00	30
H-2F 50,8/25,4	50,8	25,4	1,10	30
H-2F 76,2/38,1	76,2	38,1	1,20	15
H-2F 102,0/50,8	102,0	50,8	1,35	15
H-2F 126,0/63,5	126,0	63,5	1,40	15
H-2F 150,0/76,0	150,0	76,0	1,40	15

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-2F(3X)

Thin-wall heat shrink tubing / flexible / flame retardant / 3:1 / mil spec 135 degrees

Features:

- Crosslinked Polyolefin
- Shrink ratio: 3:1
- Flame retardant
- High flexibility

Approvals:

- UL224 125 °C VW-1 600 V file E204071
- CSA file no.: 1934614
- Meets: RoHS
- Meets: SAE-AMS-DTL-23053/5 class 1 and 3

Application:

- Operating temperature: -55 °C to +135 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +100 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black
- Other colors: red, blue, yellow, green, white, transparent (flame retardant class 2)



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-2F(3X) 1,5/0,5	1,5	0,5	0,45	150
H-2F(3X) 3,0/1,0	3,0	1,0	0,55	150
H-2F(3X) 4,5/1,5	4,8	1,5	0,60	75
H-2F(3X) 6,0/2,0	6,4	2,0	0,65	75
H-2F(3X) 9,0/3,0	9,5	3,0	0,75	75
H-2F(3X) 12,0/4,0	12,7	4,0	0,80	50
H-2F(3X) 18,0/6,0	19,1	6,0	0,90	30
H-2F(3X) 24,0/8,0	25,4	8,0	1,20	30
H-2F(3X) 39,0/13,0	39,0	13,0	1,25	30

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-2F(4X)

Thin-wall heat shrink tubing / flexible / flame retardant / 4:1 / mil spec 135 degrees

Features:

- Crosslinked Polyolefin
- Shrink ratio: 4:1
- Flame retardant
- High flexibility

Approvals:

- UL224 125 °C VW-1 600 V file E204071
- CSA file no.: 1934614
- Meets: RoHS
- Meets: SAE-AMS-DTL-23053/5 class 1 and 3

Application:

- Operating temperature: -55 °C to +135 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +100 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black
- Other colors: red, blue, yellow, green



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
H-2F(4X) 19,1/4,6	19,1	4,6	1,7	1220
H-2F(4X) 25,4/7,0	25,4	7,0	1,7	1220
H-2F(4X) 38,1/9,5	38,1	9,5	1,7	1220
H-2F(4X) 50,8/14,0	50,8	14,0	1,7	1220
H-2F(4X) 76,2/20,6	76,2	20,6	1,7	1220
H-2F(4X) 102,0/26,7	102,0	26,7	1,7	1220
H-2F(4X) 115,0/36,8	115,0	36,8	1,7	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-2(HF)

Thin-wall heat shrink tubing / flexible / flame retardant / 2:1 / halogen free

Features:

- Crosslinked Polyolefin
- Shrink ratio: 2:1
- Flame retardant
- Halogen free
- Low smoke emission

Approvals:

- UL224 125 °C VW-1 600 V
- Meets: RoHS

Application:

- Operating temperature: -55 °C to +105 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +100 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Colors: black and white
- Other colors are available on request



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-2(HF) 1,2/0,6	1,2	0,6	0,33	150
H-2(HF) 1,6/0,8	1,6	0,8	0,36	150
H-2(HF) 2,4/1,2	2,4	1,2	0,44	150
H-2(HF) 3,2/1,6	3,2	1,6	0,44	150
H-2(HF) 4,8/2,4	4,8	2,4	0,51	75
H-2(HF) 6,4/3,2	6,4	3,2	0,56	75
H-2(HF) 9,5/4,8	9,5	4,8	0,56	75
H-2(HF) 12,7/6,4	12,7	6,4	0,65	50
H-2(HF) 16,0/8,0	16,0	8,0	0,69	50
H-2(HF) 19,0/9,5	19,0	9,5	0,80	30
H-2(HF) 25,4/12,7	25,4	12,7	0,90	30
H-2(HF) 32,0/16,0	32,0	16,0	1,02	30
H-2(HF) 38,1/19,0	38,1	19,0	1,02	30
H-2(HF) 50,8/25,4	50,8	25,4	1,14	30
H-2(HF) 76,2/38,1	76,2	38,1	1,27	15

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-2F(Y/G)

Thin-wall heat shrink tubing / yellow/green striped / flexible / flame retardant / 2:1/3:1 / mil spec 135 degrees

Features:

- Crosslinked Polyolefin
- Shrink ratio: 2:1 and 3:1
- Flame retardant
- High flexibility

Approvals:

- UL224 125 °C VW-1 600 V file E204071
- CSA file no.: 1934614
- Meets: RoHS
- Meets: SAE-AMS-DTL-23053/5 class 1 and 3

Application:

- Operating temperature: -55 °C to +135 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +100 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: yellow / green
- Also available in various lengths and in mini boxes



Shrink ratio 3:1

Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-2F(Y/G) 3:1 1,5/0,5	1,5	0,5	0,51	150
H-2F(Y/G) 3:1 2,4/0,8	2,4	0,8	0,51	150
H-2F(Y/G) 3:1 3,0/1,0	3,0	1,0	0,55	150
H-2F(Y/G) 3:1 4,5/1,5	4,8	1,5	0,60	75
H-2F(Y/G) 3:1 6,0/2,0	6,4	2,0	0,65	75
H-2F(Y/G) 3:1 9,0/3,0	9,5	3,0	0,75	75
H-2F(Y/G) 3:1 12,0/4,0	12,7	4,0	0,75	50
H-2F(Y/G) 3:1 18,0/6,0	19,1	6,0	0,85	30
H-2F(Y/G) 3:1 24,0/8,0	25,4	8,0	1,00	30
H-2F(Y/G) 3:1 39,0/13,0	39,0	13,0	1,15	30

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

Shrink ratio 2:1

Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-2F(Y/G) 2:1 1,2/0,6	1,2	0,6	0,32	150
H-2F(Y/G) 2:1 1,6/0,8	1,6	0,8	0,32	150
H-2F(Y/G) 2:1 2,4/1,2	2,4	1,2	0,42	150
H-2F(Y/G) 2:1 3,2/1,6	3,2	1,6	0,42	150
H-2F(Y/G) 2:1 4,8/2,4	4,8	2,4	0,52	75
H-2F(Y/G) 2:1 6,4/3,2	6,4	3,2	0,54	75
H-2F(Y/G) 2:1 9,5/4,8	9,5	4,8	0,54	75
H-2F(Y/G) 2:1 12,7/6,4	12,7	6,4	0,62	50
H-2F(Y/G) 2:1 16,0/8,0	16,0	8,0	0,67	50
H-2F(Y/G) 2:1 19,0/9,5	19,0	9,5	0,75	30
H-2F(Y/G) 2:1 25,4/12,7	25,4	12,7	0,85	30
H-2F(Y/G) 2:1 32,0/16,0	32,0	16,0	0,85	30
H-2F(Y/G) 2:1 38,1/19,0	38,1	19,0	0,96	30
H-2F(Y/G) 2:1 50,8/25,4	50,8	25,4	0,96	30
H-2F(Y/G) 2:1 76,2/38,1	76,2	38,1	1,17	15
H-2F(Y/G) 2:1 102,0/50,8	102,0	50,8	1,30	15

For other types / sizes, please see the following page

H-2(LS)

Thin-wall heat shrink tubing / flexible / flame retardant / 2:1 / low shrink temperature

Features:

- Crosslinked Polyolefin
- Shrink ratio: 2:1
- Low shrink temperature

Approvals:

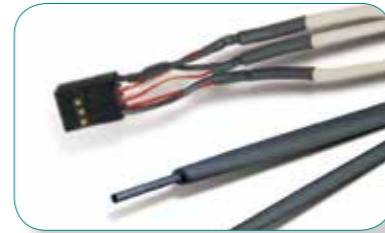
- Flame propagation FMVSS 302
- Meets: RoHS

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum shrink temperature: +65 °C
- Minimum full recovery temperature: +95 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-2(LS) 1,6/0,8	1,6	0,8	0,5	150
H-2(LS) 2,4/1,2	2,4	1,2	0,5	150
H-2(LS) 3,2/1,6	3,2	1,6	0,5	150
H-2(LS) 4,8/2,4	4,8	2,4	0,5	75
H-2(LS) 6,4/3,2	6,4	3,2	0,6	75
H-2(LS) 9,5/4,8	9,5	4,8	0,6	75
H-2(LS) 12,7/6,4	12,7	6,4	0,6	50
H-2(LS) 16,0/8,0	16,0	8,0	0,6	50
H-2(LS) 19,0/9,5	19,0	9,5	0,8	30
H-2(LS) 25,4/12,7	25,4	12,7	0,9	30
H-2(LS) 32,0/16,0	32,0	16,0	0,9	30
H-2(LS) 38,1/19,0	38,1	19,0	1,0	30
H-2(LS) 50,8/25,4	50,8	25,4	1,1	30

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-2(CB)

Thin-wall heat shrink tubing / flexible / flame retardant / 2:1 / ultra thin-wall

Features:

- Crosslinked Polyolefin
- Shrink ratio: 2:1
- Flame retardant
- Ultra thin-wall
- High flexibility

Approvals:

- UL224 125 °C VW-1 300 V file E204071
- CSA file no.: 1934614
- Meets: RoHS

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +100 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-2(CB) 1,2/0,6	1,2	0,6	0,20	150
H-2(CB) 1,6/0,8	1,6	0,8	0,20	150
H-2(CB) 2,4/1,2	2,4	1,2	0,25	150
H-2(CB) 3,2/1,6	3,2	1,6	0,25	150
H-2(CB) 4,8/2,4	4,8	2,4	0,25	75
H-2(CB) 6,4/3,2	6,4	3,2	0,28	75
H-2(CB) 9,5/4,8	9,5	4,8	0,28	75
H-2(CB) 12,7/6,4	12,7	6,4	0,28	50

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-1

Thin-wall heat shrink tubing / non flame retardant / 2:1

Features:

- Crosslinked Polyolefin
- Shrink ratio: 2:1
- 100% transparent
- Bright shiny-black

Approvals:

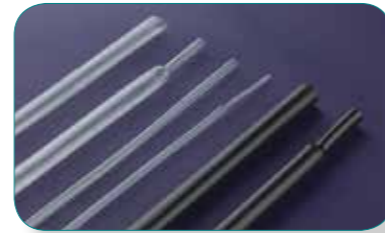
- Meets: RoHS

Application:

- Operating temperature: -55 °C to +105 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +95 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Colors: shiny-black / transparent
- Also available in various lengths and in mini boxes



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-1 1,2/0,6	1,2	0,6	0,33	150
H-1 1,6/0,8	1,6	0,8	0,36	150
H-1 2,4/1,2	2,4	1,2	0,44	150
H-1 3,2/1,6	3,2	1,6	0,44	150
H-1 4,8/2,4	4,8	2,4	0,56	75
H-1 6,4/3,2	6,4	3,2	0,56	75
H-1 9,5/4,8	9,5	4,8	0,56	75
H-1 12,7/6,4	12,7	6,4	0,65	50
H-1 16,0/8,0	16,0	8,0	0,69	50
H-1 19,0/9,5	19,0	9,5	0,80	30
H-1 25,4/12,7	25,4	12,7	0,90	30
H-1 32,0/16,0	32,0	16,0	0,90	30
H-1 38,1/19,0	38,1	19,0	1,00	30
H-1 50,8/25,4	50,8	25,4	1,00	30
H-1 76,2/38,1	76,2	38,1	1,20	15

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HBG

Thin-wall heat shrink tubing / flexible / 2:1 / for flexible gas pipes

Features:

- Crosslinked Polyolefin
- Industry specific design
- Excellent shrinking properties
- Good mechanical performance

Approvals:

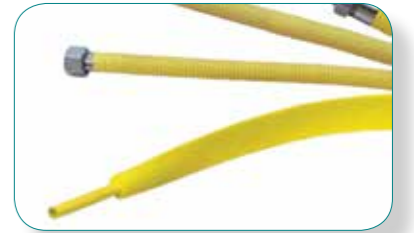
- Meets: RoHS

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum shrink temperature: +80 °C
- Minimum full recovery temperature: +110 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: yellow



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
HBG 23,0/9,5	23,0	9,5	0,65	100
HBG 27,5/12,7	27,5	12,7	0,70	100
HBG 29,0/12,7	29,0	12,7	0,70	50
HBG 33,5/16,0	33,5	16,0	0,80	50
HBG 40,5/19,0	40,5	19,0	0,80	50
HBG 51,0/25,4	51,0	25,4	0,80	50
HBG 65,0/32,5	65,0	32,5	1,27	50
HBG 76,2/38,1	77,0	38,1	1,27	50

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

Mini box type 1

Thin-wall heat shrink tubing / flexible / flame retardant / 2:1 / H-2(Z)

Features:

- Crosslinked Polyolefin
- Shrink ratio: 2:1
- Flame retardant
- General purpose
- High flexibility

Approvals:

- UL224 125 °C VW-1 600 V file E204071
- CSA file no.: 1934614
- Meets: RoHS, Sony-SS-00259

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +100 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Colors: black, red, blue, yellow, green, white



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Box / Meter
H-2(Z) 1,2/0,6	1,2	0,6	0,33	10
H-2(Z) 1,6/0,8	1,6	0,8	0,36	10
H-2(Z) 2,4/1,2	2,4	1,2	0,44	10
H-2(Z) 3,2/1,6	3,2	1,6	0,44	10
H-2(Z) 4,8/2,4	4,8	2,4	0,51	10
H-2(Z) 6,4/3,2	6,4	3,2	0,56	5
H-2(Z) 9,5/4,8	9,5	4,8	0,56	5
H-2(Z) 12,7/6,4	12,7	6,4	0,65	5
H-2(Z) 16,0/8,0	16,0	8,0	0,69	5
H-2(Z) 19,0/9,5	19,0	9,5	0,80	5
H-2(Z) 25,4/12,7	25,4	12,7	0,90	5

Mini box type 2

Thin-wall heat shrink tubing / flexible / flame retardant / 3:1 / H-2(3X)

Features:

- Crosslinked Polyolefin
- Shrink ratio: 3:1
- Flame retardant
- General purpose
- High flexibility

Approvals:

- UL224 125 °C VW-1 600 V file E204071
- CSA file no.: 1934614
- Meets: RoHS, Sony-SS-00259

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +100 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Box / Meter
H-2(3X) 1,5/0,5	1,5	0,5	0,45	10
H-2(3X) 3,0/1,0	3,0	1,0	0,55	10
H-2(3X) 4,5/1,5	4,8	1,5	0,60	10
H-2(3X) 6,0/2,0	6,4	2,0	0,65	10
H-2(3X) 9,0/3,0	9,5	3,0	0,75	5
H-2(3X) 12,0/4,0	12,7	4,0	0,80	5
H-2(3X) 18,0/6,0	19,1	6,0	0,90	5
H-2(3X) 24,0/8,0	25,4	8,0	1,00	5

Assortments heat shrink tubing

Features:

- Crosslinked Polyolefin
- Shrink ratio: 2:1
- Flame retardant
- General purpose
- High flexibility

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +100 °C
- Longitudinal change: 0 ± 10% max.

Content assortment 1: 127 pcs H-2(Z) heat shrink tubing (mixed colors)

Type / Size	Length in mm	Quantity
H-2(Z) 1,6/0,8	35,0	30
H-2(Z) 2,4/1,2	35,0	25
H-2(Z) 3,2/1,6	35,0	20
H-2(Z) 4,8/2,4	35,0	20
H-2(Z) 6,4/3,2	75,0	16
H-2(Z) 9,5/4,8	75,0	8
H-2(Z) 12,7/6,4	100,0	8



Content assortment 2: 127 pcs H-2(Z) heat shrink tubing (black)

Type / Size	Length in mm	Quantity
H-2(Z) 1,6/0,8	35,0	30
H-2(Z) 2,4/1,2	35,0	25
H-2(Z) 3,2/1,6	35,0	20
H-2(Z) 4,8/2,4	35,0	20
H-2(Z) 6,4/3,2	75,0	16
H-2(Z) 9,5/4,8	75,0	8
H-2(Z) 12,7/6,4	100,0	8



Content assortment 3: 469 pcs H-2(Z) heat shrink tubing (black)

Type / Size	Length in mm	Quantity
H-2(Z) 2,4/1,2	35,0	124
H-2(Z) 3,2/1,6	35,0	100
H-2(Z) 4,8/2,4	35,0	80
H-2(Z) 6,4/3,2	35,0	60
H-2(Z) 9,5/4,8	70,0	65
H-2(Z) 12,7/6,4	70,0	15
H-2(Z) 16,0/8,0	100,0	15
H-2(Z) 19,0/9,5	70,0	5
H-2(Z) 25,4/12,7	70,0	5



H-5(3X)-F and H-5(4X)-F

Dual-wall heat shrink tubing / flexible / flame retardant / 3:1/4:1 / adhesive lined

Features:

- Crosslinked co-extruded adhesive lined Polyolefin
- Shrink ratio: 3:1 and 4:1
- Flame retardant
- Excellent sealing and insulation properties
- UV resistant

Approvals:

- UL224 125 °C VW-1 600 V file E204071
- Meets: RoHS
- Meets: SAE-AMS-DTL-23053/4

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +110 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black
- Other colors: red, blue, yellow, green, white, transparent (flame retardant class 2)
- Also available in various lengths and in mini boxes (please see page 43)



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter & Standard length in mm
H-5(3X)-F 3:1 3,0/1,0	3,0	1,0	1,00	150 meter
H-5(3X)-F 3:1 4,8/1,5	4,8	1,5	1,00	75 meter
H-5(3X)-F 3:1 6,0/2,0	6,0	2,0	1,00	75 meter
H-5(3X)-F 3:1 9,0/3,0	9,0	3,0	1,40	50 meter
H-5(3X)-F 3:1 12,0/4,0	12,0	4,0	1,60	30 meter
H-5(3X)-F 3:1 19,0/6,0	19,0	6,0	2,15	30 meter
H-5(3X)-F 3:1 24,0/8,0	24,0	8,0	2,40	30 meter
H-5(3X)-F 3:1 30,0/10,0	30,0	10,0	2,40	30 meter
H-5(3X)-F 3:1 40,0/13,0	40,0	13,0	2,40	30 meter
H-5(4X)-F 4:1 4,0/1,0	4,0	1,0	1,00	150 meter
H-5(4X)-F 4:1 6,0/1,5	6,0	1,5	1,00	75 meter
H-5(4X)-F 4:1 8,0/2,0	8,0	2,0	1,00	75 meter
H-5(4X)-F 4:1 12,0/3,0	12,0	3,0	1,40	50 meter
H-5(4X)-F 4:1 16,0/4,0	16,0	4,0	1,60	30 meter
H-5(4X)-F 4:1 24,0/6,0	24,0	6,0	2,15	30 meter
H-5(4X)-F 4:1 32,0/8,0	32,0	8,0	2,40	30 meter
H-5(4X)-F 4:1 52,0/13,0	52,0	13,0	2,40	1220 mm

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HBK

Dual-wall heat shrink tubing / automotive / adhesive lined / 4:1

Features:

- Crosslinked adhesive lined Polyolefin
- Shrink ratio: 4:1
- High performance adhesive
- Designed for wire harnesses / splices
- Tubing for automotive industry
- Excellent mechanical performance

Approvals:

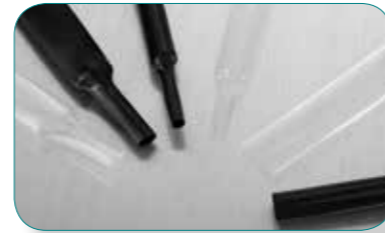
- Meets: RoHS

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum shrink temperature: +110 °C
- Minimum full recovery temperature: +135 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Colors: black, transparent



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
HBK 6,0/1,27	6,0	1,27	1,30	1220
HBK 8,0/1,65	8,0	1,65	1,52	1220
HBK 12,0/2,41	12,0	2,41	1,91	1220
HBK 18,0/4,45	18,0	4,45	2,41	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

Mini box type 3

Dual-wall heat shrink tubing / flexible / flame retardant / 3:1 / adhesive lined / H-5(3X)-F

Features:

- Crosslinked co-extruded adhesive lined Polyolefin
- Shrink ratio: 3:1
- Flame retardant
- Excellent sealing and insulation properties
- UV resistant

Approvals:

- UL224 125 °C VW-1 600 V file E204071
- Meets: RoHS
- Meets: SAE-AMS-DTL-23053/4

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum shrink temperature: +70 °C
- Minimum full recovery temperature: +110 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Box / Meter
H-5(3X)-F 3:1 3,0/1,0	3,0	1,0	1,00	5,0
H-5(3X)-F 3:1 4,8/1,5	4,8	1,5	1,00	4,0
H-5(3X)-F 3:1 6,0/2,0	6,0	2,0	1,00	3,5
H-5(3X)-F 3:1 9,0/3,0	9,0	3,0	1,40	3,0
H-5(3X)-F 3:1 12,0/4,0	12,0	4,0	1,60	2,5
H-5(3X)-F 3:1 19,0/6,0	19,0	6,0	2,15	2,0
H-5(3X)-F 3:1 24,0/8,0	24,0	8,0	2,40	1,5

H-175K

Special heat shrink tubing / Kynar® / 175 degrees / 2:1

Features:

- Crosslinked PVDF
- Shrink ratio: 2:1
- Superior mechanical and abrasion resistance
- Highly flame retardant
- High temperature resistance
- Excellent chemical and solvent resistance

Approvals:

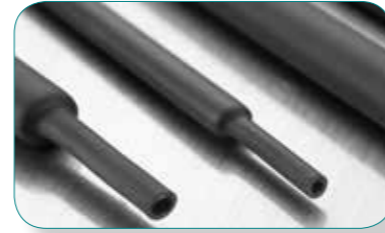
- Meets: RoHS
- Meets: SAE-AMS-DTL-23053/18

Application:

- Operating temperature: -55 °C to +175 °C
- Minimum shrink temperature: +175 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: transparent (black available on request)



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter & Standard length in mm
H-175K 1,2/0,6	1,2	0,6	0,20	150 meter
H-175K 1,6/0,8	1,6	0,8	0,20	150 meter
H-175K 2,4/1,2	2,4	1,2	0,23	150 meter
H-175K 3,2/1,6	3,2	1,6	0,23	150 meter
H-175K 4,8/2,4	4,8	2,4	0,23	75 meter
H-175K 6,4/3,2	6,4	3,2	0,28	75 meter
H-175K 9,5/4,8	9,5	4,8	0,28	1220 mm
H-175K 12,7/6,4	12,7	6,4	0,28	1220 mm
H-175K 19,1/9,5	19,1	9,5	0,36	1220 mm
H-175K 25,4/12,7	25,4	12,7	0,41	1220 mm
H-175K 38,1/19,0	38,1	19,0	0,51	1220 mm

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-200E and H-200E(TW)

Special heat shrink tubing / Viton® / 200 degrees / 2:1

Features:

- H-200E = Fluoroelastomer tubing
- H-200E(TW) = thin-wall Fluoroelastomer tubing
- Crosslinked Fluoroelastomer
- Shrink ratio: 2:1
- Superior abrasion resistance
- High temperature resistance
- Excellent resistance to aggressive chemicals and solvents

Approvals:

- Meets: RoHS
- Meets: SAE-AMS-DTL-23053/13

Application:

- Operating temperature: -55 °C to +200 °C
- Minimum full recovery temperature: +175 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black
- Available in various wall thicknesses



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
H-200E 3,2/1,6	3,2	1,6	0,76	50
H-200E 4,8/2,4	4,8	2,4	0,90	50
H-200E 6,4/3,2	6,4	3,2	0,90	50
H-200E 9,5/4,8	9,5	4,8	0,90	50
H-200E 12,7/6,4	12,7	6,4	1,10	30
H-200E 19,0/9,5	19,0	9,5	1,30	30
H-200E 25,4/12,7	25,4	12,7	1,65	30
H-200E 38,1/19,0	38,1	19,0	1,90	15
H-200E 50,8/25,4	50,8	25,4	2,80	15
H-200E(TW) 9,5/4,8	9,5	4,8	0,90	50
H-200E(TW) 12,7/6,4	12,7	6,4	0,90	30
H-200E(TW) 15,9/7,9	15,9	7,9	1,07	30
H-200E(TW) 19,1/9,5	19,0	9,5	1,07	30
H-200E(TW) 22,0/11,0	22,0	11,0	1,25	30
H-200E(TW) 25,4/12,7	25,4	12,7	1,25	30
H-200E(TW) 31,8/15,7	31,8	15,7	1,40	30
H-200E(TW) 38,1/19,0	38,1	19,0	1,40	15
H-200E(TW) 50,8/25,4	50,8	25,4	1,65	15

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HTFE

Special heat shrink tubing / Teflon® / 260 degrees / 1,5:1

Features:

- Modified Tetrafluoroethylene
- Shrink ratio: 1,5:1
- Superior chemical and mechanical performance
- Very low friction coefficient
- Excellent electrical properties

Approvals:

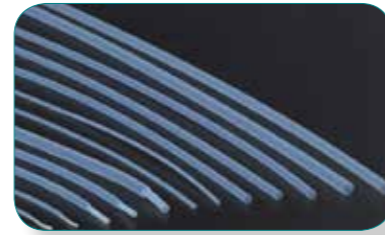
- Meets: RoHS
- Meets: SAE-AMS-DTL-23053/12

Application:

- Operating temperature: -65 °C to +260 °C
- Minimum full recovery temperature: +350 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: transparent



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
HTFE AWG 20	1,52	0,97	0,30	1220
HTFE AWG 18	1,93	1,17	0,30	1220
HTFE AWG 16	2,36	1,45	0,30	1220
HTFE AWG 14	3,05	1,82	0,30	1220
HTFE AWG 12	3,81	2,26	0,30	1220
HTFE AWG 10	4,85	2,80	0,30	1220
HTFE AWG 8	6,10	3,55	0,38	1220
HTFE AWG 6	7,67	4,40	0,38	1220
HTFE AWG 4	9,40	5,45	0,38	1220
HTFE AWG 2	10,92	6,90	0,38	1220
HTFE AWG 0	11,94	8,56	0,38	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

H-2(XT)

Special heat shrink tubing / insulation sleeve

Features:

- Crosslinked Polyolefin
- Non shrinkable
- Flame retardant

Approvals:

- Meets: RoHS
- UL224 125 °C VW-1 600 V file E204071

Application:

- Operating temperature: -55 °C to +125 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	Wall thickness in mm (min.)	Reel / Meter
H-2(XT) AWG 18	1,00	0,4	150
H-2(XT) AWG 16	1,30	0,4	150
H-2(XT) AWG 14	1,65	0,4	150
H-2(XT) AWG 12	2,10	0,4	150
H-2(XT) AWG 10	2,60	0,5	75
H-2(XT) AWG 8	3,30	0,5	75
H-2(XT) AWG 6	4,10	0,5	75
H-2(XT) AWG 4	5,20	0,5	50
H-2(XT) AWG 2	6,50	0,5	50
H-2(XT) AWG 0	8,30	0,5	30
H-2(XT) 3/8	9,50	0,5	30
H-2(XT) 7/16	11,10	0,5	30
H-2(XT) 1/2	12,70	0,5	30

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HDR and HDR(TW)

Special heat shrink tubing / diesel-resistant / 2:1

Features:

- HDR = diesel resistant elastomeric tubing
- HDR(TW) = thin-wall diesel resistant elastomeric tubing
- Crosslinked modified Fluoroelastomer
- Shrink ratio: 2:1
- Superior abrasion resistance
- High temperature resistance
- Excellent fluid resistance

Approvals:

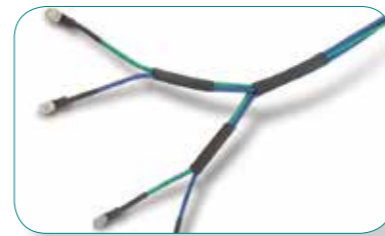
- Meets: RoHS
- Meets: SAE-AMS-DTL-23053/16

Application:

- Operating temperature: -65 °C to +150 °C
- Minimum full recovery temperature: +175 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter
HDR 3,2/1,6	3,2	1,6	0,76	50
HDR 4,8/2,4	4,8	2,4	0,85	50
HDR 6,4/3,2	6,4	3,2	0,90	50
HDR 9,5/4,8	9,5	4,8	1,02	50
HDR 12,7/6,4	12,7	6,4	1,22	30
HDR 19,0/9,5	19,0	9,5	1,45	30
HDR 25,4/12,7	25,4	12,7	1,80	30
HDR 38,1/19,0	38,1	19,0	2,40	15
HDR 50,8/25,4	50,8	25,4	2,40	15
HDR(TW) 2,4/1,2	2,4	1,2	0,51	150
HDR(TW) 3,2/1,6	3,2	1,6	0,51	150
HDR(TW) 4,8/2,4	4,8	2,4	0,51	75
HDR(TW) 6,4/3,2	6,4	3,2	0,64	75
HDR(TW) 9,5/4,8	9,5	4,8	0,64	50
HDR(TW) 12,7/6,4	12,7	6,4	0,64	30
HDR(TW) 19,0/9,5	19,1	9,5	0,76	30
HDR(TW) 25,4/12,7	25,4	12,7	0,90	30
HDR(TW) 31,8/15,9	31,8	15,9	1,01	30
HDR(TW) 38,1/19,0	38,1	19,0	1,02	30
HDR(TW) 50,8/25,4	50,8	25,4	1,20	30
HDR(TW) 63,5/30,0	63,5	30,0	1,20	30

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HFSP

Special heat shrink tubing / fiber optic splice protector

Features:

- Crosslinked Polyolefin
- Low shrink temperature
- Pre-installed stainless steel or ceramic rod
- Accomodate single or ribbon fibers

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -45 °C to +100 °C
- Minimum full recovery temperature: +120 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Wide range of sizes
- Color: transparent
- Other colors are available on request



Type / Size	Splice protector: length in mm	Fusion tube: inside diameter in mm (max.)	Steel rod: length in mm	Packing
HFSP-61	61,0	1,40	55,0	100 pcs per bag
HFSP-45	45,0	1,40	40,0	100 pcs per bag
HFSP-61T	61,0	1,40	57,0	100 pcs per bag
HFSP-45T	45,0	1,40	41,0	100 pcs per bag
HFSP-40T	40,0	1,40	36,0	100 pcs per bag
HFSP-30T	30,0	1,40	26,0	100 pcs per bag
HFSP-25T	25,0	1,40	21,0	100 pcs per bag
HFSP-40M	40,0	0,35	40,0	100 pcs per bag
HFSP-25M	25,0	0,35	25,0	100 pcs per bag

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HRA2 and HR2

Medium-wall heat shrink tubing / with and without hot melt adhesive

Features:

- Medium-wall tubing with and without hot melt adhesive
- Good environmental protection
- Good electrical and mechanical performance
- Ideal for low voltage applications
- UV resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum full recovery temperature: +120 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Also available in lengths of 1 and 1,5 meter
- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
HRA2/HR2 8/2	8,0	2,0	1,6	1220
HRA2/HR2 12/3	12,0	3,0	2,0	1220
HRA2/HR2 16/5	16,0	5,0	2,2	1220
HRA2/HR2 22/6	22,0	6,0	2,4	1220
HRA2/HR2 28/6	28,0	6,0	2,5	1220
HRA2/HR2 33/8	33,0	8,0	2,5	1220
HRA2/HR2 40/12	40,0	12,0	2,5	1220
HRA2/HR2 55/16	55,0	16,0	2,7	1220
HRA2/HR2 65/19	65,0	19,0	2,9	1220
HRA2/HR2 75/22	75,0	22,0	3,0	1220
HRA2/HR2 85/25	85,0	25,0	3,0	1220
HRA2/HR2 95/25	95,0	25,0	3,0	1220
HRA2/HR2 115/34	115,0	34,0	3,2	1220
HRA2/HR2 140/42	140,0	42,0	3,3	1220
HRA2/HR2 160/50	160,0	50,0	3,3	1220
HRA2/HR2 180/58	180,0	58,0	3,3	1220
HRA2/HR2 205/65	205,0	65,0	3,3	1220
HRA2/HR2 235/65	235,0	65,0	3,7	1220
HRA2/HR2 265/75	265,0	75,0	3,8	1220
HRA2/HR2 300/75	300,0	75,0	3,8	1220
HRA2/HR2 350/100	350,0	100,0	4,2	1220
HRA2/HR2 380/150	380,0	150,0	4,2	1220
HRA2/HR2 410/150	410,0	150,0	4,2	1220
HRA2/HR2 450/160	450,0	160,0	4,2	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HRTM

Medium-wall heat shrink tubing / with hot melt adhesive (co-extrusion)

Features:

- Medium-wall tubing with hot melt adhesive
- Co-extrusion technology
- Good electrical and mechanical performance
- Ideal for low voltage applications
- UV resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +110 °C
- Minimum full recovery temperature: +120 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Also available in lengths of 1 and 1,5 meter
- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
HRTM 8/2	8,0	2,0	1,4	1220
HRTM 12/3	12,0	3,0	1,4	1220
HRTM 16/5	16,0	5,0	1,5	1220
HRTM 22/6	22,0	6,0	2,0	1220
HRTM 33/8	33,0	8,0	2,0	1220
HRTM 40/12	40,0	12,0	2,0	1220
HRTM 55/16	55,0	16,0	2,0	1220
HRTM 65/19	65,0	19,0	2,5	1220
HRTM 75/22	75,0	22,0	2,7	1220
HRTM 85/25	85,0	25,0	2,8	1220
HRTM 95/25	95,0	25,0	2,8	1220
HRTM 115/34	115,0	34,0	3,4	1220
HRTM 140/42	140,0	42,0	3,4	1220
HRTM 160/50	160,0	50,0	3,4	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HSTV

Medium-wall heat shrink tubing / with hot melt adhesive for CATV network

Features:

- Medium-wall tubing with hot melt adhesive
- With thermo-chromatic stripes / paint
- Designed for CATV industry
- Easy to remove for repairs
- UV resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +110 °C
- Minimum full recovery temperature: +120 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
HSTV 400	10,0	3,8	2,0	1220
HSTV 750	19,0	5,6	2,4	1220
HSTV 1100	28,0	9,0	2,4	1220
HSTV 1300	33,0	10,0	2,4	1220
HSTV 1500	38,1	12,0	2,4	1220
HSTV 1700	45,0	13,0	2,4	1220
HSTV 2050	55,0	19,0	2,4	1220
HSTV 2750	70,0	25,0	2,4	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HRS

Medium-wall heat shrink tubing / with mastic coating

Features:

- Medium-wall tubing with mastic
- Excellent corrosion protection properties
- Excellent bonding to both metal and wood
- UV resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -35 °C to +110 °C
- Minimum full recovery temperature: +120 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Also available in lengths of 1 and 1,5 meter
- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
HRS 33/8	33,0	8,0	2,5	1220
HRS 40/12	40,0	12,0	2,5	1220
HRS 55/16	55,0	16,0	2,7	1220
HRS 65/19	65,0	19,0	2,9	1220
HRS 75/22	75,0	22,0	3,0	1220
HRS 85/25	85,0	25,0	3,0	1220
HRS 95/25	95,0	25,0	3,0	1220
HRS 115/34	115,0	34,0	3,2	1220
HRS 140/42	140,0	42,0	3,3	1220
HRS 160/50	160,0	50,0	3,3	1220
HRS 180/58	180,0	58,0	3,3	1220
HRS 200/65	200,0	65,0	3,3	1220
HRS 235/65	235,0	65,0	3,7	1220
HRS 265/75	265,0	75,0	3,8	1220
HRS 300/85	300,0	85,0	3,8	1220
HRS 350/100	350,0	100,0	4,2	1220
HRS 380/150	380,0	150,0	4,2	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HRA3 and HR3

Heavy-wall heat shrink tubing / with and without hot melt adhesive

Features:

- Heavy-wall tubing with and without hot melt adhesive
- Superior electrical and environmental insulation
- Excellent abrasion and impact resistance
- Ideal for low voltage applications
- UV resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +125 °C
- Minimum full recovery temperature: +120 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Also available in lengths of 1 and 1,5 meter
- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
HRA3/HR3 9/3	9,0	3,0	1,8	1220
HRA3/HR3 13/4	13,0	4,0	2,2	1220
HRA3/HR3 22/6	22,0	6,0	2,7	1220
HRA3/HR3 33/8	33,0	8,0	3,2	1220
HRA3/HR3 40/12	40,0	12,0	4,0	1220
HRA3/HR3 45/12	45,0	12,0	4,0	1220
HRA3/HR3 55/16	55,0	16,0	4,0	1220
HRA3/HR3 65/19	65,0	19,0	4,0	1220
HRA3/HR3 75/22	75,0	22,0	4,0	1220
HRA3/HR3 85/25	85,0	25,0	4,2	1220
HRA3/HR3 95/30	95,0	30,0	4,2	1220
HRA3/HR3 105/30	105,0	30,0	4,2	1220
HRA3/HR3 115/34	115,0	34,0	4,2	1220
HRA3/HR3 130/36	130,0	36,0	4,2	1220
HRA3/HR3 160/50	160,0	50,0	4,2	1220
HRA3/HR3 180/50	180,0	50,0	4,2	1220
HRA3/HR3 200/60	200,0	60,0	4,2	1220
HRA3/HR3 235/65	235,0	65,0	4,1	1220
HRA3/HR3 265/75	265,0	75,0	4,3	1220
HRA3/HR3 300/85	300,0	85,0	4,4	1220
HRA3/HR3 350/100	350,0	100,0	4,5	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HRTH

Heavy-wall heat shrink tubing / with hot melt adhesive (co-extrusion)

Features:

- Heavy-wall tubing with hot melt adhesive
- Co-extrusion technology
- Excellent electrical and mechanical performance
- UV resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +110 °C
- Minimum full recovery temperature: +120 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Also available in lengths of 1 and 1,5 meter
- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
HRTH 9/3	9,0	3,0	1,95	1220
HRTH 15/4	15,0	4,0	2,35	1220
HRTH 20/6	20,0	6,0	2,45	1220
HRTH 33/8	33,0	8,0	3,15	1220
HRTH 43/12	43,0	12,0	4,05	1220
HRTH 51/16	51,0	16,0	4,05	1220
HRTH 75/22	75,0	22,0	4,20	1220
HRTH 85/25	85,0	25,0	4,20	1220
HRTH 95/25	95,0	25,0	4,20	1220
HRTH 105/25	105,0	25,0	4,20	1220
HRTH 115/34	115,0	34,0	4,20	1220
HRTH 130/36	130,0	36,0	4,20	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HRA-6X

Heavy-wall heat shrink tubing / with hot melt adhesive and extra high shrink ratio

Features:

- Heavy-wall tubing with hot melt adhesive
- Shrink ratio: 6:1
- Crosslinked Polyolefin
- Excellent sealing properties
- Extra heavy-wall
- UV resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +110 °C
- Minimum full recovery temperature: +120 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard length in mm
HRA-6X 19,0/3,2	19,0	3,2	3,2	1220
HRA-6X 33,0/5,5	33,0	5,5	3,4	1220
HRA-6X 44,4/7,4	44,4	7,4	3,6	1220
HRA-6X 50,8/8,3	50,8	8,3	4,7	1220
HRA-6X 69,8/11,7	69,8	11,7	4,7	1220
HRA-6X 88,9/17,1	88,9	17,1	4,7	1220
HRA-6X 119,4/22,9	119,4	22,9	4,7	1220
HRA-6X 235,0/40,0	235,0	40,0	4,7	1220

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HRSL

Heavy-wall heat shrink tubing / heat shrinkable cable repair sleeve with glue

Features:

- Heat shrinkable wrap around sleeve
- Good environmental protection
- Good electrical and mechanical performance
- Ideal for low voltage applications
- UV and weather resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -40 °C to +65 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Standard lengths in mm
HRSL 36/10	38,0	9,0	2,4	500, 750, 1000, 1500
HRSL 55/13	57,0	13,0	2,5	500, 750, 1000, 1500
HRSL 85/20	85,0	20,0	3,0	500, 750, 1000, 1500
HRSL 108/27	110,0	27,0	3,0	500, 750, 1000, 1500
HRSL 136/30	138,0	30,0	3,2	500, 750, 1000, 1500
HRSL 180/50	183,0	50,0	3,2	500, 750, 1000, 1500

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HBM Halogen free busbar insulation tubing

- Features:**
- Medium-wall halogen free busbar insulation tubing
 - Crosslinked Polyolefin
 - Excellent electrical properties and creeping resistance
 - UV resistant
 - Up to 36 kV

- Approvals:**
- Meets: RoHS

- Application:**
- Minimum full recovery temperature: +110 °C
 - Longitudinal change: 0 ± 10% max.

- Order information:**
- Color: red



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter & Standard length in mm
HBM 19/6	19,0	6,0	1,9	30 meter
HBM 25/10	25,0	10,0	1,9	30 meter
HBM 30/12	30,0	12,0	1,9	30 meter
HBM 35/14	35,0	14,0	1,9	30 meter
HBM 40/16	40,0	16,0	1,9	30 meter
HBM 50/20	50,0	20,0	1,9	30 meter
HBM 65/25	65,0	25,0	1,9	30 meter
HBM 75/30	75,0	30,0	1,9	15 meter
HBM 100/40	100,0	40,0	1,9	15 meter
HBM 120/50	120,0	50,0	2,9	1000 mm
HBM 150/60	150,0	60,0	2,9	1000 mm
HBM 180/60	180,0	60,0	2,9	1000 mm
HBM 205/75	205,0	75,0	2,9	1000 mm
HBM 235/75	235,0	75,0	2,9	1000 mm

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HBTM and HBTH Halogen free flexible busbar insulation tubing

- Features:**
- HBTM = medium-wall tubing
 - HBTH = heavy-wall tubing
 - Medium- and heavy-wall flexible busbar insulation tubing
 - Modified Polyolefin
 - Excellent electrical properties and creeping resistance
 - Halogen free
 - UV and weather resistant
 - Up to 36 kV

- Approvals:**
- Meets: RoHS

- Application:**
- Minimum full recovery temperature: +120 °C
 - Longitudinal change: 0 ± 10% max.

- Order information:**
- Color: red



Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	Reel / Meter & Standard length in mm
HBTM 19/6	19,0	6,0	2,5	30 meter
HBTM 25/10	25,0	10,0	2,9	30 meter
HBTM 30/12	30,0	12,0	2,9	30 meter
HBTM 40/16	40,0	16,0	2,9	30 meter
HBTM 50/20	50,0	20,0	2,9	15 meter
HBTM 65/25	65,0	25,0	2,9	15 meter
HBTM 75/30	75,0	30,0	2,9	15 meter
HBTM 85/35	85,0	35,0	2,9	15 meter
HBTM 100/40	100,0	40,0	2,9	15 meter
HBTM 120/50	120,0	50,0	2,9	15 meter
HBTH 25/10	25,0	10,0	4,0	1220 mm
HBTH 33/8	33,0	8,0	4,0	1220 mm
HBTH 40/16	40,0	16,0	4,0	1220 mm
HBTH 55/16	55,0	16,0	4,0	1220 mm
HBTH 75/25	75,0	25,0	4,0	1220 mm
HBTH 95/30	95,0	30,0	4,0	1220 mm
HBTH 120/40	120,0	40,0	4,1	1220 mm
HBTH 180/58	180,0	58,0	4,1	1220 mm

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HSEC and HCEC

Moulded parts / cable end caps with spiral adhesive coating

Features:

- HSEC = standard end cap
- HSEC-L = standard end cap, extended length
- HCEC = conductive end cap
- Crosslinked Polyolefin
- Excellent sealing properties
- Ideal for low voltage applications
- UV and weather resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +110 °C
- Minimum full recovery temperature: +120 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type HSEC

Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	After recovery: length in mm
HSEC 105	12,0	4,0	2,6	40,0
HSEC 110	14,0	5,0	2,2	45,0
HSEC 115	20,0	6,0	2,8	55,0
HSEC 120	25,0	8,5	2,8	68,0
HSEC 130	35,0	16,0	3,3	90,0
HSEC 135	40,0	16,0	3,3	83,0
HSEC 140	55,0	26,0	3,5	103,0
HSEC 150	75,0	36,0	4,0	120,0
HSEC 160	100,0	52,0	4,0	140,0
HSEC 170	120,0	60,0	4,0	150,0
HSEC 180	145,0	60,0	4,0	150,0
HSEC 190	160,0	80,0	4,0	150,0
HSEC 110L	14,0	5,0	2,2	55,0
HSEC 130L	40,0	15,0	3,3	90,0
HSEC 135L	42,0	15,0	3,3	110,0
HSEC 140L	55,0	23,0	3,8	140,0
HSEC 145L	62,0	23,0	3,8	140,0
HSEC 150L	75,0	36,0	4,0	150,0
HSEC 150XL	75,0	36,0	4,2	170,0
HSEC 160L	100,0	47,0	4,0	155,0

For other types / sizes, please see the following page

Type HCEC

Type / Size	As supplied: inside diameter in mm (min.)	After recovery: inside diameter in mm (max.)	After recovery: wall thickness in mm (min.)	After recovery: length in mm
HCEC 120	25,0	8,5	2,8	68,0
HCEC 130	42,0	15,0	3,3	110,0
HCEC 140	55,0	23,0	3,8	140,0
HCEC 145	62,0	23,0	3,8	140,0
HCEC 150	75,0	32,0	4,0	150,0
HCEC 150L	75,0	36,0	4,2	170,0
HCEC 160	105,0	45,0	4,0	150,0

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HLB

Moulded parts / low voltage cable breakouts 2 - 5 cores

Features:

- HLB2 = low voltage cable breakout 2 - cores
- HLB3 = low voltage cable breakout 3 - cores
- HLB3..L = low voltage cable breakout 3 - cores (extended length)
- HLB4 = low voltage cable breakout 4 - cores
- HLB5 = low voltage cable breakout 5 - cores
- Crosslinked Polyolefin
- Available for 2 - 5 cores
- Excellent sealing properties
- Ideal for low voltage applications
- UV resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +110 °C
- Minimum shrink temperature: +110 °C
- Minimum full recovery temperature: +130 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter large in mm (min.)	As supplied: inside diameter small in mm (min.)	After recovery: inside diameter large in mm (max.)	After recovery: inside diameter small in mm (min.)	After recovery: wall thickness in mm (min.)	After recovery: length in mm
HLB 205	22,0	9,0	8,0	3,5	2,2	55,0
HLB 210	30,0	14,0	12,0	4,5	2,6	93,0
HLB 215	40,0	15,0	16,0	5,0	2,1	125,0
HLB 220	60,0	25,0	23,0	7,5	2,6	118,0
HLB 220L	60,0	25,0	23,0	7,5	2,6	155,0
HLB 230	100,0	30,0	42,0	9,0	3,1	155,0
HLB 240	150,0	20,0	75,0	6,0	3,8	170,0
HLB 310	38,0	14,0	17,0	4,5	2,7	98,0
HLB 320	60,0	25,0	25,0	8,0	3,0	165,0
HLB 330	80,0	35,0	38,0	11,0	3,5	185,0
HLB 340	110,0	46,0	50,0	17,5	4,0	250,0
HLB 350	125,0	55,0	57,0	20,0	4,0	260,0
HLB 360	140,0	62,0	70,0	26,0	4,0	280,0
HLB 370	170,0	75,0	77,0	28,0	4,0	280,0
HLB 310L	40,0	15,0	16,0	4,5	2,1	125,0
HLB 320L	60,0	25,0	24,0	8,0	3,2	180,0
HLB 330L	80,0	35,0	38,0	11,0	4,0	215,0

For other types / sizes, please see the following page

Type / Size	As supplied: inside diameter large in mm (min.)	As supplied: inside diameter small in mm (min.)	After recovery: inside diameter large in mm (max.)	After recovery: inside diameter small in mm (min.)	After recovery: wall thickness in mm (min.)	After recovery: length in mm
HLB 410	42,0	14,0	15,0	3,5	2,2	105,0
HLB 420	55,0	20,0	21,0	5,0	3,1	150,0
HLB 425	65,0	26,0	26,0	7,0	3,3	175,0
HLB 430	75,0	28,0	26,0	7,0	3,3	175,0
HLB 440	82,0	30,0	37,0	9,0	4,0	190,0
HLB 445	90,0	32,0	37,0	9,0	4,0	190,0
HLB 450	102,0	38,0	47,0	12,0	4,0	198,0
HLB 460	130,0	52,0	52,0	15,0	4,0	240,0
HLB 470	160,0	64,0	70,0	19,0	4,0	260,0
HLB 510	40,0	13,0	19,0	4,0	2,5	98,0
HLB 520	55,0	18,0	24,0	5,0	3,2	155,0
HLB 530	80,0	26,0	33,0	8,0	3,0	175,0
HLB 540	100,0	34,0	42,0	10,0	3,0	190,0

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HCB

Moulded parts / 3 - core conductive cable breakouts

Features:

- Crosslinked Polyolefin
- Conductive
- Red non tracking mastic applied
- UV resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +105 °C
- Minimum shrink temperature: +110 °C
- Minimum full recovery temperature: +130 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter large in mm (min.)	As supplied: inside diameter small in mm (min.)	After recovery: inside diameter large in mm (max.)	After recovery: inside diameter small in mm (min.)	After recovery: wall thickness in mm (min.)	After recovery: length in mm
HCBS320	60,0	25,0	24,0	8,0	3,0	183,0
HCBS330	80,0	35,0	38,0	11,0	4,0	215,0
HCBS340	110,0	46,0	50,0	17,5	4,0	250,0
HCBS350	125,0	55,0	57,0	20,0	4,0	260,0
HCBS360	140,0	62,0	70,0	26,0	4,0	280,0

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

HCFT

Moulded parts / cable feed throughs

Features:

- Crosslinked Polyolefin adhesive lined
- Excellent sealing properties
- Ideal for low voltage applications
- UV and weather resistant

Approvals:

- Meets: RoHS

Application:

- Operating temperature: -55 °C to +110 °C
- Minimum full recovery temperature: +110 °C
- Longitudinal change: 0 ± 10% max.

Order information:

- Color: black



Type / Size	As supplied: inside diameter large in mm (min.)	As supplied: inside diameter small in mm (min.)	After recovery: inside diameter large in mm (max.)	After recovery: inside diameter small in mm (min.)	After recovery: wall thickness in mm (min.)	After recovery: length in mm
HCFT 110	85,0	15,0	42,0	5,0	2,5	130,0
HCFT 120	60,0	45,0	30,0	10,0	2,5	130,0
HCFT 130	100,0	20,0	52,0	8,0	3,0	150,0
HCFT 130L	100,0	20,0	50,0	8,0	3,0	210,0
HCFT 135	150,0	14,0	92,0	5,0	3,5	150,0
HCFT 140	160,0	60,0	92,0	20,0	3,2	150,0
HCFT 150	160,0	100,0	92,0	45,0	3,5	150,0

For selecting the right type of heat shrink tubing (selection table), please see page 66
For cross references, please see page 68

Selection table heat shrink tubing

Product type	Product name	Shrink ratio	Operating temperature and Potential rating	Flame retardant	UL	Mil spec	UV resistant	Halogen free
Thin-wall heat shrink tubing	H-2(Z)	2:1	-55 °C to +125 °C, 600 V	VW-1	Yes			
	H-2(3X)	3:1	-55 °C to +125 °C, 600 V	VW-1	Yes			
	H-2F	2:1	-55 °C to +135 °C, 600 V	VW-1	Yes	Yes		
	H-2F(3X)	3:1	-55 °C to +135 °C, 600 V	VW-1	Yes	Yes		
	H-2F(4X)	4:1	-55 °C to +135 °C, 600 V	VW-1	Yes	Yes		
	H-2(HF)	2:1	-55 °C to +105 °C, 600 V	Self-extinguish in 30 seconds	Yes			Yes
	H-2F(Y/G)	2:1 & 3:1	-55 °C to +135 °C, 600 V	VW-1	Yes	Yes		
	H-2(LS)	2:1	-55 °C to +125 °C, 600 V	FMVSS 302				
	H-2(CB)	2:1	-55 °C to +125 °C, 300 V	VW-1	Yes			
	H-1	2:1	-55 °C to +105 °C, 600 V					
HBG	2:1	-55 °C to +125 °C, 600 V						
Dual-wall heat shrink tubing	H-5(3X)-F	3:1	-55 °C to +125 °C, 600 V	VW-1	Yes	Yes	Yes	
	H-5(4X)-F	4:1	-55 °C to +125 °C, 600 V	VW-1	Yes	Yes	Yes	
	HBK	4:1	-55 °C to +125 °C, 600 V	Self-extinguish in 30 seconds			Yes	
Special heat shrink tubing	H-175K	2:1	-55 °C to +175 °C, 600 V	VW-1		Yes		Yes
	H-200E	2:1	-55 °C to +200 °C, 600 V	VW-1		Yes		Yes
	H-200E(TW)	2:1	-55 °C to +200 °C, 600 V	VW-1		Yes		Yes
	HTFE	1,5:1	-65 °C to +260 °C, 600 V	Self-extinguish in 30 seconds		Yes		
	H-2(XT)		-55 °C to +125 °C, 600 V	Self-extinguish in 30 seconds				
	HDR	2:1	-65 °C to +150 °C, 600 V	Self-extinguish in 30 seconds		Yes		
	HDR(TW)	2:1	-65 °C to +150 °C, 600 V	Self-extinguish in 30 seconds		Yes		
	HFSP	2:1	-45 °C to +100 °C, 600 V					Yes

Selection table heat shrink tubing

Product type	Product name	Shrink ratio	Operating temperature and Potential rating	Flame retardant	UL	Mil spec	UV resistant	Halogen free
Medium-wall heat shrink tubing	HRA2	3:1	-55 °C to +125 °C				Yes	Yes
	HR2	3:1	-55 °C to +125 °C				Yes	Yes
	HRTM	3:1	-55 °C to +110 °C				Yes	Yes
	HSTV	3:1	-55 °C to +110 °C				Yes	Yes
	HRS	3:1	-35 °C to +110 °C				Yes	Yes
Heavy-wall heat shrink tubing	HRA3	3:1	-55 °C to +125 °C				Yes	Yes
	HR3	3:1	-55 °C to +125 °C				Yes	Yes
	HRTH	3:1	-55 °C to +110 °C				Yes	Yes
	HRA-6X	6:1	-55 °C to +110 °C				Yes	Yes
Busbar insulation tubing	HBM	2,5:1	-55 °C to +105 °C, up to 36 kV	ISO 4589			Yes	Yes
	HBTM	2,5:1	-55 °C to +105 °C, up to 36 kV	ISO 4589			Yes	Yes
	HBTH	2,5:1	-55 °C to +105 °C, up to 36 kV	ISO 4589			Yes	Yes
Moulded parts	HSEC		-55 °C to +110 °C				Yes	Yes
	HCEC		-55 °C to +110 °C				Yes	Yes
	HLB		-55 °C to +110 °C				Yes	Yes
	HCB		-55 °C to +105 °C				Yes	Yes
	HCFT		-55 °C to +110 °C				Yes	Yes

Cross references heat shrink tubing

Type	Hongshang	Raychem	DSG-Canusa	HellermannTyton
Thin-wall heat shrink tubing	H-2(Z)	BRST	Deray-H	TCN 20
	H-2(3X)			TCN 20
	H-2F	CGPT / RNF / Versafit	Deray-I	TF21
	H-2F(3X)	RNF-3000	Deray-I 3000	TF31
	H-2F(4X)			
	H-2(HF)		CZT 200	TF24
	H-2F(Y/G)	DCPT	Deray-IGY	TREDUX
	H-2(LS)	LSTT	Deray-LSB	
	H-2(CB)		Deray-ITW	
	H-1	CGPE-105	Deray-H	
	HBG			
Dual-wall heat shrink tubing	H-5(3X)-F	ATUM	Deray-IAKT	TA32
	H-5(4X)-F		Deray-IAKT	TA42
	HBK		CBK	
Special heat shrink tubing	H-175K	RW-175	Deray-KY175	
	H-200E	RW-200	Deray-VT220	
	H-200E(TW)	RW-200E		
	HTFE		Deray-PTFE	
	H-2(XT)	NETM		HS kous
	HDR		Deray-V25	
	HDR(TW)		Deray-V25 TW	
	HFSP		CFSP	

The cross references mentioned above are an indication. Technical characteristics can differ from each other.

Cross references heat shrink tubing

Type	Hongshang	Raychem	DSG-Canusa	HellermannTyton
Medium-wall heat shrink tubing	HRA2	MWTM / RMW	CFM	MA47
	HR2		CFM	MU47
	HRTM	MWTM / RMW		TREDUX MA47
	HSTV	TCS / SCTV	CFTV	
	HRS			
Heavy-wall heat shrink tubing	HRA3	WCSM / RHW	CFW	HA47
	HR3		CFW	HU47
	HRTH	WCSM / RHW		TREDUX HA47
	HRA-6X	HRHT	CFHR	HA67
Busbar insulation tubing	HBM			
	HBTM	BPRM	CBTM	
	HBTH	BBIT	CBTH	
Moulded parts	HSEC		CCAP / CEC	Helashrink 1600
	HCEC			
	HLB		CCB	
	HCB			
	HCFT			

The cross references mentioned above are an indication. Technical characteristics can differ from each other.