

# Hongshang

*Let's connect the World*



## HEAT SHRINK PRODUCTS

Electric Power



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SINCE 1994  
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## Index

### Medium & Heavy Wall Tubing

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HRA2/HR2	Medium wall tubing with/without hot melt adhesive coating	01-02
HRTM	Medium wall tubing with hot melt adhesive lined	03-04
HRA3/ HR3	Heavy wall tubing with/without hot melt adhesive coating	05-06
HRTH	Heavy wall tubing with hot melt adhesive lined	07-08
HRA-6X	Heavy wall tubing with hot melt adhesive coating, 6:1 shrink ratio	09-10
HRS	Medium wall tubing with black mastic coating for corrosion protection	11-12

### Medium Voltage Components

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HAT/HATA	Anti-tracking insulation tubing, up to 36kV	13-14
HSCT	Semi-conductive tubing, up to 36kV	15-16
HSC-100	Stress control tubing , up to 24kV for cable joints and termination	17-18
HSC-360	Stress control tubing , up to 36kV for cable joints and termination	19-20
HDWT	Semi-conductive/insulation double layer screened insulating composite tubing	21-22
HTRT	Semi conductive/ insulation /elastomer triple layer screened insulating composite tubing	23-24
HGT	High insulation tubing, up to 36kV	25-26
HEGT	High insulation/elastomeric double layer tubing, up to 36kV	27-28
HOT	Oil resistant tubing, up to 36kV	29-30
HBTM/HBTH	Medium/heavy wall tubing for busbar insulation	31-32
Mastic tape	Tape55 stress relief mastic/Tape65 anti-tracking mastic/ Tape75 black sealing mastic	33-34

### Moulded Parts

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HLB	Low voltage breakout, 2 to 5 cores	35-36
HSEC	Insulating end cap	37-38
HCFT	Cable feed throughs	39-40
HCB	Conductive breakout, 3 cores	41-42
HAS/HMB/HMR	Anti-tracking rain shed/Anti-tracking 3 cores breakout/ Anti-tracking right angle/straight Boot	43-44



## Company Profile



Hongshang, established in 1994, with over 80000 square meter-gross building area, is one of the high-tech enterprise in China that can provide a full range of business solutions from design, development, production and service for the field of Energy, Electronic, Automotive, Communication, Building & Shipbuilding, and other industries.

The products provided by Hongshang have covered the whole services of heat shrinkable tubing, heat shrinkable cable accessories, cold shrinkable cable accessories, pre-molded cable accessories, cast resin cable accessories, etc. Hongshang has a complete quality guarantee system which has been certificated by ISO 9001:2000. Most of our products comply with EU ROHS environmental standards and passed international technical standard type tests, such as UL, CAS , IEC, IEEE, and GENELEC.

Hongshang entered the global market in the 1990s and established close business relationship with many global front-line enterprise. Our products are exported to more than 60 counties and regions. Hongshang stands more than a brand of high quality and excellent services in various industries.

## Our technology

### ◎ Compounding

With strong background of research and development radiation in modified polymer materials, we are producing and developing varieties of chemical formulations for different heat shrinkable products. Advanced mixing facilities ensure the fine dispersion of components in each formulation and the homogeneously physical, electrical and chemical properties in final products.

### ◎ Radiation Crosslinking

4 sets of powerful electronic accelerator were installed in our company. The specially designed advanced under beam facilities can be easily adjusted to meet the requirements of different size and shaped products and ensure the homogeneous crosslinking of products. To meet the increasing demand of our business, the more powerful 5.0Mev electronic accelerator have been put into operation.

### ◎ R&D Center

In accordance with the requirement of UL 224, RoHs, REACH compliance, and IEC, we equipped more than 30 sets of instruments and facilities for R&D purpose by which we can test mechanical, thermal, electrical, chemical, flammable and fluid resistant performances of polymeric products. To meet the special requirement of power cable accessories products we also set up a high voltage laboratory to test the high voltage performance of power cable kits.

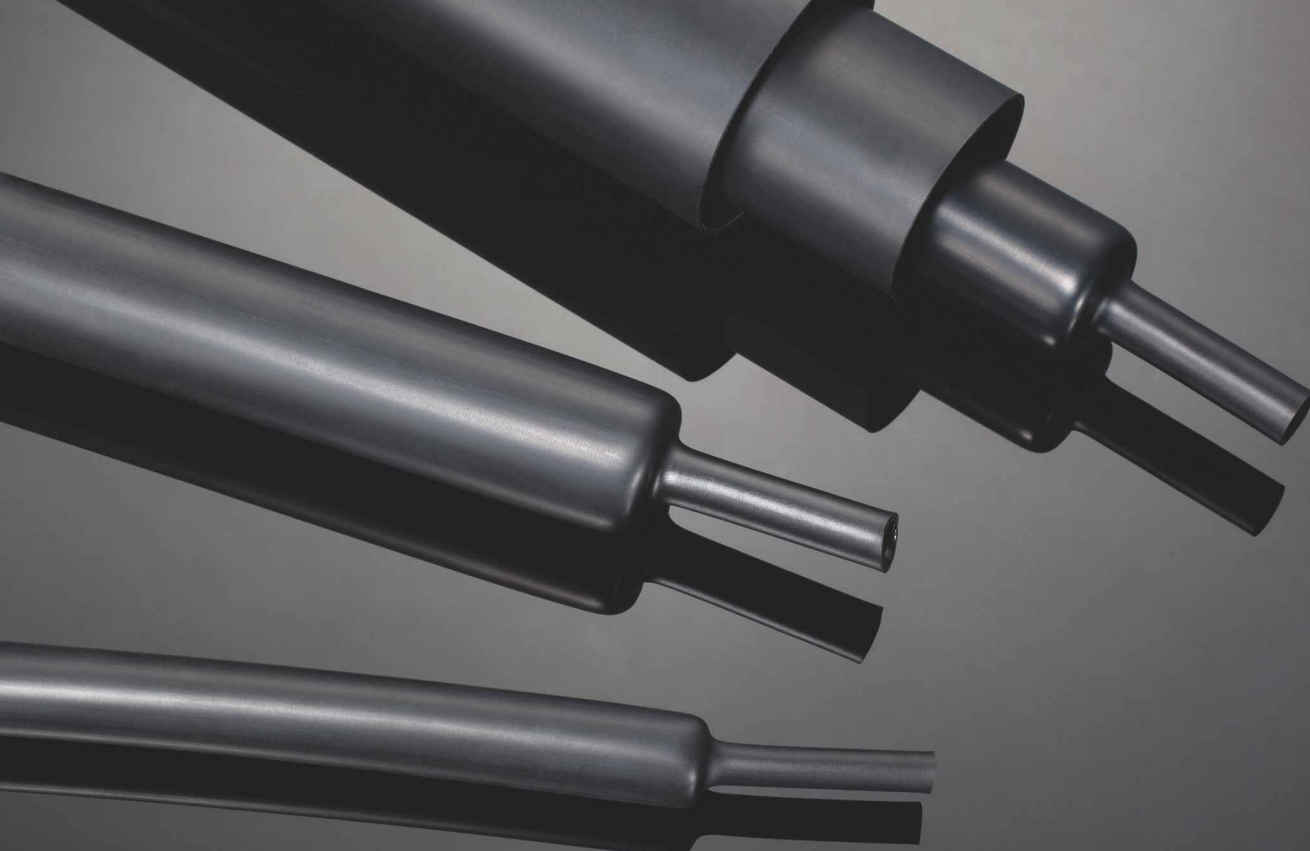
### ◎ Extrusion

To obtain the products with stable and homogeneous dimensions, we equipped with 40 advanced extrusion line in which many key parts were improved by technology from foreign countries. The co-extrusion technology makes it possible for us to manufacture polyolefin/hot melt adhesive dual wall and insulation/conductive multi-layers tubing.

### ◎ Expansion

Expansion is a very important and key process to obtain the final forms and dimensions of heat shrinkable products. With the equipments and technology from Europe, we can accurately control the dimensions, longitudinal changes and eccentricity of the final products.





# HRA2/HR2 Medium Wall Tubing

Medium wall tubing with/without hot melt adhesive coating

■ **Shelf life & storage:**

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

■ **Ordering information:**

Standard colors:  
Black.

■ **Features:**

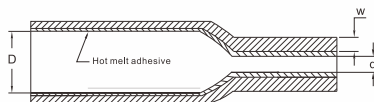
Dual wall, hot melt adhesive inner lined(HRA2)	Supply in cut piece with max. 1.5m in length
UV resistant	Flammable
Semi-rigid	Shrink ratio 3:1
Min. full recovery temp.:120°C	



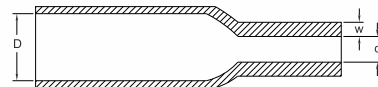
## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	350% min.
Tensile strength after Aging at 150°C for 168hrs	ASTM D 2671	12MPa min.
Ultimate elongation after Aging at 150°C for 168hrs	ASTM D 2671	300% min.
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>
Dielectric strength	ASTM D 60243	12kV/mm(2mm) min.
Volume resistivity	ASTM D 2671	10 <sup>12</sup> Ω.cm min.
Low temperature flexibility -40°C/4hrs	ASTM D 2671	No cracking of outer jacket
Properties of hot melt adhesive		
Softening point	ASTM E28	85+/-5°C
Peel strength(PE)	ASTM D 2671	4N/cm min.
Water absorption	ISO 62	0.2% max.

## ■ Dimensions:



HRA2



HR2

HRA2 Medium wall tubing with hot melting adhesive									
Size (mm)	Assupplied (mm)	After recovered (mm)		Standard length (m)	Size (mm)	Assupplied (mm)	After recovered (mm)		Standard length (m)
	D*(Min.)	d*(Max.)	w*(Min.)			D*(Min.)	d*(Max.)	w*(Min.)	
8/2	8	2	1.8	1.0-1.5	95/25	95	25	3.6	1.0-1.5
12/3	12	3	1.8	1.0-1.5	115/34	115	34	3.5	1.0-1.5
16/5	16	5	2.1	1.0-1.5	140/42	140	42	3.3	1.0-1.5
22/6	22	6	2.4	1.0-1.5	160/50	160	50	3.3	1.0-1.5
28/6	28	6	2.7	1.0-1.5	180/58	180	58	3.3	1.0-1.5
33/8	33	8	2.6	1.0-1.5	235/65	235	65	3.7	1.0-1.5
40/12	40	12	2.6	1.0-1.5	300/75	300	75	3.8	1.0-1.2
55/16	55	16	2.7	1.0-1.5	350/100	350	100	4.3	1.0-1.2
65/19	65	19	2.9	1.0-1.5	410/150	410	150	4.3	1.0-1.2
75/22	75	22	3.0	1.0-1.5					

HR2 Medium wall tubing without hot melting adhesive									
Size (mm)	As supplied (mm)	After recovered (mm)		Standard length	Size (mm)	Assupplied (mm)	After recovered (mm)		Standard length
	D*(Min.)	d*(Max.)	w*(Min.)			D*(Min.)	d*(Max.)	w*(Min.)	
12/3	12	3	1.8	30m/spool or 1.0-1.5m	95/25	95	25	3.6	15m/spool or 1.0-1.5m
16/5	16	5	2.1	30m/spool or 1.0-1.5m	115/34	115	34	3.5	15m/spool or 1.0-1.5m
22/6	22	6	2.4	30m/spool or 1.0-1.5m	140/42	140	42	3.3	1.0-1.5m
28/6	28	6	2.7	30m/spool or 1.0-1.5m	160/50	160	50	3.3	1.0-1.5m
33/8	33	8	2.6	30m/spool or 1.0-1.5m	180/58	180	58	3.3	1.0-1.5m
40/12	40	12	2.6	30m/spool or 1.0-1.5m	235/65	235	65	3.7	1.0-1.5m
55/16	55	16	2.7	30m/spool or 1.0-1.5m	300/75	300	75	3.8	1.0-1.2m
65/19	65	19	2.9	30m/spool or 1.0-1.5m	350/100	350	100	4.3	1.0-1.2m
75/22	75	22	3.0	30m/spool or 1.0-1.5m	450/150	450	150	4.3	1.0-1.2m

D\* = Inner diameter as supplied      d\* = Inner diameter after fully recovered  
w\* = Outer Layer Wall thickness after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HR5  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HRTM Medium Wall Tubing

Co-extruded medium wall tubing with hot melt adhesive lined

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Black.

## ■ Features:

Dual wall, hot melt adhesive lined by co-extrusion	UV resistant
Flammable	Semi-rigid
Shrink ratio 3:1	Min. full recovery temp.: 120°C

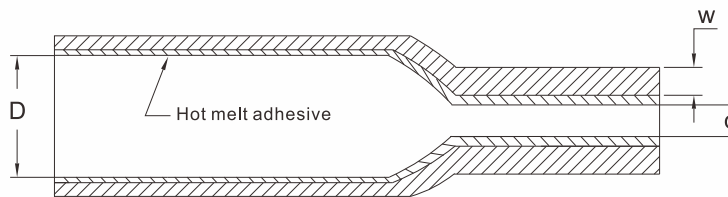




## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	350% min.
Tensile strength after Aging at 150°C for 168hrs	ASTM D 2671	12MPa min.
Ultimate elongation after Aging at 150°C for 168hrs	ASTM D 2671	300% min.
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>
Dielectric strength	ASTM D 60243	12kV/mm(2mm) min.
Volume resistivity	ASTM D 2671	10 <sup>12</sup> Ω.cm min.
Low temperature flexibility -40°C/4hrs	ASTM D 2671	No cracking of outer jacket
Properties of hot melt adhesive		
Softening point	ASTM E28	105+/-5°C
Peel strength(PE)	ASTM D 2671	4N/cm min.
Water absorption	ISO 62	0.2% max.

## ■ Dimensions:



Size (mm)	As supplied (mm)		After recovered (mm)		Standard length (m)	Size (mm)	As supplied (mm)		After recovered (mm)		Standard length (m)
	D*(Min.)	d*(Max.)	w(Min.)				D*(Min.)	d*(Max.)	w(Min.)		
8/2	8	2	1.8		1.0-1.5	45/12	45	12	2.4		1.0-1.5
12/3	12	3	1.9		1.0-1.5	55/16	55	16	2.4		1.0-1.5
16/5	16	5	1.9		1.0-1.5	65/19	65	19	2.6		1.0-1.5
19/5	19	5	1.9		1.0-1.5	75/22	75	22	2.8		1.0-1.5
22/6	22	6	2.1		1.0-1.5	95/25	95	25	3.1		1.0-1.5
28/6	28	6	2.6		1.0-1.5	115/34	115	34	3.5		1.0-1.5
33/8	33	8	2.4		1.0-1.5	140/42	140	42	3.4		1.0-1.5
40/12	40	12	2.4		1.0-1.5	160/50	160	50	3.4		1.0-1.5

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

H SCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HRA3/HR3 Heavy Wall Tubing

Heavy wall tubing with/without hot melt adhesive coating

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Black.

## ■ Features:

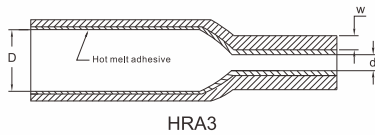
Dual wall, hot melt adhesive inner liner (HRA3)	UV resistant
Flammable	Semi-rigid
Shrink ratio 3:1	Min. full recovery temp.: 120°C
Supply in cut piece with max. 1.5m in length	



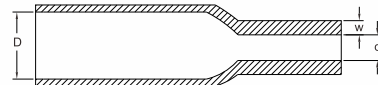
## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	350% min.
Tensile strength after Aging at 150°C for 168hrs	ASTM D 2671	12MPa min.
Ultimate elongation after Aging at 150°C for 168hrs	ASTM D 2671	300% min.
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>
Dielectric strength	ASTM D 60243	12kV/mm(2mm) min.
Volume resistivity	ASTM D 2671	10 <sup>12</sup> Ω.cm min.
Low temperature flexibility -40°C/4hrs	ASTM D 2671	No cracking of outer jacket
Properties of hot melt adhesive		
Softening point	ASTM E28	85+/-5°C
Peel strength(PE)	ASTM D 2671	4N/cm min.
Water absorption	ISO 62	0.2% max.

## ■ Dimensions:



HRA3



HR3

HRA3 Heavy wall tubing with hot melting adhesive										
Size (mm)	Assupplied (mm)		After recovered (mm)		Standard length (m)	Size (mm)	As supplied (mm)		After recovered (mm)	
	D*(Min.)	d*(Max.)	w*(Min.)	t*(Min.)			D*(Min.)	d*(Max.)	w*(Min.)	t*(Min.)
9/3	9	3	2.0	1.0-1.5	105/25	105	25	4.5	1.0-1.5	
15/4	15	4	2.4	1.0-1.5	115/34	115	34	4.2	1.0-1.5	
22/6	22	6	2.7	1.0-1.5	130/36	130	36	4.2	1.0-1.5	
33/8	33	8	3.2	1.0-1.5	180/50	180	50	4.2	1.0-1.5	
45/12	45	12	4.0	1.0-1.5	200/60	200	60	4.2	1.0-1.5	
55/16	55	16	4.0	1.0-1.5	235/65	235	65	4.4	1.0-1.5	
65/19	65	19	4.0	1.0-1.5	265/75	265	75	4.8	1.0-1.5	
75/22	75	22	4.0	1.0-1.5	300/85	300	85	4.8	1.0-1.2	
85/25	85	25	4.2	1.0-1.5	350/100	350	100	4.8	1.0-1.2	
95/29	95	29	4.2	1.0-1.5	385/110	385	110	4.8	1.0-1.2	

HR3 Heavy wall tubing without hot melting adhesive										
Size (mm)	As supplied (mm)		After recovered (mm)		Standard length (m)	Size (mm)	Assupplied (mm)		After recovered (mm)	
	D*(Min.)	d*(Max.)	w*(Min.)	t*(Min.)			D*(Min.)	d*(Max.)	w*(Min.)	t*(Min.)
9/3	9	3	2.0	1.0-1.5	95/29	95	29	4.2	1.0-1.5	
15/4	15	4	2.4	1.0-1.5	115/34	115	34	4.2	1.0-1.5	
22/6	22	6	2.7	1.0-1.5	130/36	130	36	4.2	1.0-1.5	
33/8	33	8	3.2	1.0-1.5	180/50	180	50	4.2	1.0-1.5	
45/12	45	12	4.0	1.0-1.5	200/60	200	60	4.2	1.0-1.5	
55/16	55	16	4.0	1.0-1.5	235/65	235	65	4.4	1.0-1.5	
65/19	65	19	4.0	1.0-1.5	265/75	265	75	4.8	1.0-1.5	
75/22	75	22	4.0	1.0-1.5	300/85	300	85	4.8	1.0-1.2	
85/25	85	25	4.2	1.0-1.5						

D\* = Inner diameter as supplied      d\* = Inner diameter after fully recovered  
w\* = Outer Layer Wall thickness after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HRTH Heavy Wall Tubing

Co-extruded heavy wall tubing with hot melt adhesive lined

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Black.

## ■ Features:

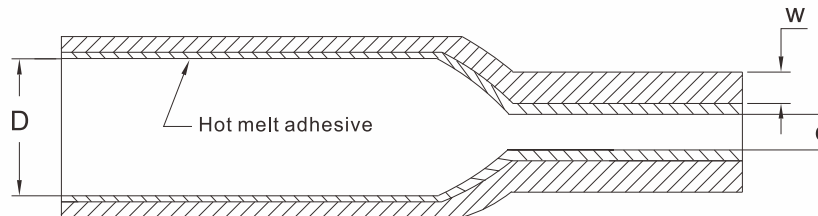
Dual wall, hot melt adhesive lined by co-extrusion	UV resistant
Flammable	Semi-rigid
Shrink ratio 3:1	Min. full recovery temp.:120°C



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	350% min.
Tensile strength after Aging at 150°C for 168hrs	ASTM D 2671	12MPa min.
Ultimate elongation after Aging at 150°C for 168hrs	ASTM D 2671	300% min.
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>
Dielectric strength	ASTM D 60243	12kV/mm(2mm) min.
Volume resistivity	ASTM D 2671	10 <sup>12</sup> Ω.cm min.
Low temperature flexibility -40°C/4hrs	ASTM D 2671	No cracking of outer jacket
Properties of hot melt adhesive		
Softening point	ASTM E28	105+/-5°C
Peel strength(PE)	ASTM D 2671	4N/cm min.
Water absorption	ISO 62	0.2% max.

## ■ Dimensions:



Size (mm)	Assupplied (mm)		Standard length (m)	Size (mm)	After recovered (mm)		Standard length (m)		
	D*(Min.)	d*(Max.)			w(Min.)	D*(Min.)		d*(Max.)	w(Min.)
9/3	9	3	1.9	1.0-1.5	75/22	75	22	4.0	1.0-1.5
16/4	16	4	2.4	1.0-1.5	85/25	85	25	4.0	1.0-1.5
24/6	24	6	2.6	1.0-1.5	95/25	95	25	4.0	1.0-1.5
34/8	34	8	3.2	1.0-1.5	105/25	105	25	4.0	1.0-1.5
48/12	48	12	4.0	1.0-1.5	115/30	115	30	4.0	1.0-1.5
55/16	55	16	4.0	1.0-1.5	130/35	130	35	4.2	1.0-1.5

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

H SCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HRA-6X Heavy Wall Tubing

Heavy wall tubing with hot melt adhesive coating

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Black.

## ■ Features:

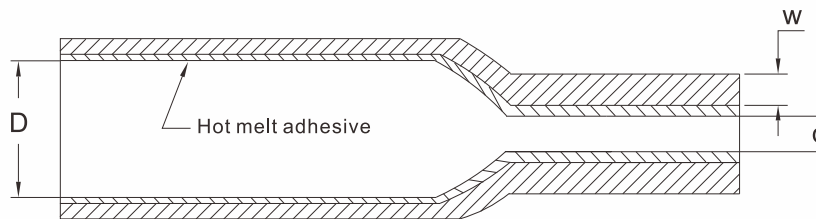
Dual wall, hot melt adhesive inner liner	UV resistant
Flammable	Semi-rigid
Shrink ratio 6:1	Min. full recovery temp.: 120°C
UV resistant	Supply in cut piece with max.1.5m in length



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	350% min.
Tensile strength after Aging at 150°C for 168hrs	ASTM D 2671	12MPa min.
Ultimate elongation after Aging at 150°C for 168hrs	ASTM D 2671	300% min.
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>
Dielectric strength	ASTM D 60243	12kV/mm(2mm) min.
Volume resistivity	ASTM D 2671	10 <sup>12</sup> Ω.cm min.
Low temperature flexibility -40°C/4hrs	ASTM D 2671	No cracking of outer jacket
Properties of hot melt adhesive		
Softening point	ASTM E28	85+/-5°C
Peel strength(PE)	ASTM D 2671	4N/cm min.
Water absorption	ISO 62	0.2% max.

## ■ Dimensions:



Size (mm)	As supplied (mm)			Standard length (m)	Size (mm)	After recovered (mm)			Standard length (m)
	D* (Min.)	d* (Max.)	w (Min.)			D* (Min.)	d* (Max.)	w (Min.)	
19/3.2	19.0	3.2	3.2	1.0-1.22	69.8/11.7	69.8	11.7	4.7	1.0-1.22
33/5.5	33.0	5.5	3.4	1.0-1.22	88.9/17.1	88.9	17.1	4.7	1.0-1.22
44.4/7.4	44.4	7.4	3.6	1.0-1.22	119.4/22.9	119.4	22.9	4.7	1.0-1.22
50.8/8.3	50.8	8.3	4.7	1.0-1.22	235/40	235.0	40.0	4.7	1.0

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HRS Medium Wall Tubing

Medium wall tubing with black mastic coating

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Black.

## ■ Features:

Dual wall, black mastic coated	UV resistant
Flammable	Semi-rigid
Shrink ratio 3:1	Min. full recovery temp.:120°C

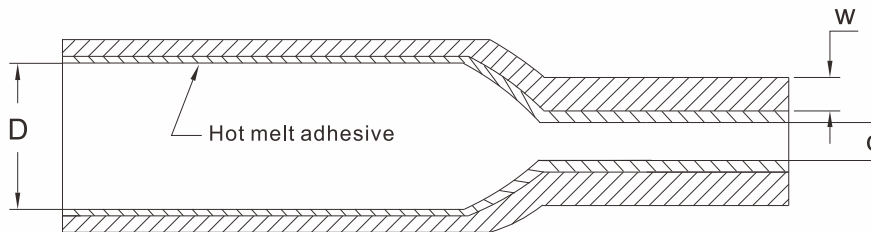




## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	350% min.
Tensile strength after Aging at 150°C for 168hrs	ASTM D 2671	12MPa min.
Ultimate elongation after Aging at 150°C for 168hrs	ASTM D 2671	300% min.
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>
Dielectric strength	ASTM D 60243	12kV/mm(2mm) min.
Volume resistivity	ASTM D 2671	10 <sup>12</sup> Ω.cm min.
Low temperature flexibility -40°C/4hrs	ASTM D 2671	No cracking of outer jacket
Properties of mastic		
Softening point	ASTM E28	85+/-5°C
Water absorption	ISO 62	0.2% max.

## ■ Dimensions:



Size (mm)	As supplied (mm)		After recovered (mm)		Standard length (m)	Size (mm)	As supplied (mm)		After recovered (mm)		Standard length (m)
	D* (Min.)	d* (Max.)	w (Min.)				D* (Min.)	d* (Max.)	w (Min.)		
33/8	33	8	2.6	1.0-1.5		160/50	160	50	3.3	1.0-1.5	
40/12	40	12	2.6	1.0-1.5		180/58	180	58	3.3	1.0-1.5	
55/16	55	16	2.7	1.0-1.5		200/58	200	58	3.3	1.0-1.5	
75/22	75	22	3.0	1.0-1.5		235/65	235	65	3.7	1.0-1.5	
95/25	95	25	3.2	1.0-1.5		265/75	265	75	3.8	1.0-1.5	
115/34	115	34	3.5	1.0-1.5		300/75	300	75	3.8	1.0-1.2	
140/42	140	42	3.3	1.0-1.5		350/100	350	100	4.3	1.0-1.2	

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC T  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HAT/HATA Medium Voltage Tubing

Anti tracking insulation tubing

■ **Shelf life & storage:**

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

■ **Ordering information:**

Standard colors:  
Red.

■ **Features:**

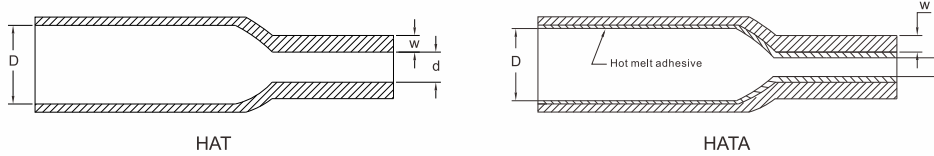
Anti-tracking	UV resistant
Flame retardant	Flexible
Shrink ratio 3:1	Min. full recovery temp.: 120°C
Application up to 36kV	



## ■ Key technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	10MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Tensile strength after Aging at 150°C for 168hrs	ASTM D 2671	10MPa min.
Ultimate elongation after Aging at 150°C for 168hrs	ASTM D 2671	100% min.
Heat shock at 200°C/30min	ASTM D 2671	No cracking, dropping
Density	ASTM D 792	1.2~1.3g/cm <sup>3</sup>
Dielectric strength	IEC 60243	10kV/mm(2.5mm) min.
Volume resistivity	ASTM D 2671	10 <sup>12</sup> Ω.cm min.
Low temperature flexibility -40°C/4hrs	ASTM D 2671 Proc.C	No cracking
Permittivity	ASTM D 150	3 (nom.)
Tracking resistance	ASTM D 2303	No tracking

## ■ Dimensions:



Continues length tubing (HAT)									
Size (mm)	As supplied (mm)	After recovered (mm)		Standard length	Size (mm)	As supplied (mm)	After recovered (mm)		Standard length
	D*(Min.)	d*(Max.)	w(Min.)			D*(Min.)	d*(Max.)	w(Min.)	
19/6	19	6	2.5	30m/spool or 0.5-1.5m	65/21	65	21	3.3	30m/spool or 0.5-1.5m
30/10	30	10	2.9	30m/spool or 0.5-1.5m	75/25	75	25	3.5	30m/spool or 0.5-1.5m
38/12	38	12	2.9	30m/spool or 0.5-1.5m	85/29	85	29	3.5	30m/spool or 0.5-1.5m
40/16	40	16	2.9	30m/spool or 0.5-1.5m	100/40	100	40	4.0	0.5-1.5m
49/16	49	16	2.9	30m/spool or 0.5-1.5m	130/50	130	50	4.0	1.0-1.5m
55/18	55	18	2.9	30m/spool or 0.5-1.5m					

Cut length tubing (HATA)									
Size (mm)	As supplied (mm)	After recovered (mm)		Standard length (m)	Size (mm)	As supplied (mm)	After recovered (mm)		Standard length (m)
	D*(Min.)	d*(Max.)	w(Min.)			D*(Min.)	d*(Max.)	w(Min.)	
30/10	30	10	2.9	1.0-1.5	65/21	65	21	3.3	1.0-1.5
40/12	40	12	2.9	1.0-1.5	75/25	75	25	3.5	1.0-1.5
43/14	43	14	2.9	1.0-1.5	85/29	85	29	3.5	1.0-1.5
49/16	49	16	2.9	1.0-1.5	100/40	100	40	4.0	1.0-1.5
55/18	55	18	2.9	1.0-1.5	130/50	130	50	4.0	1.0-1.5

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC1  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

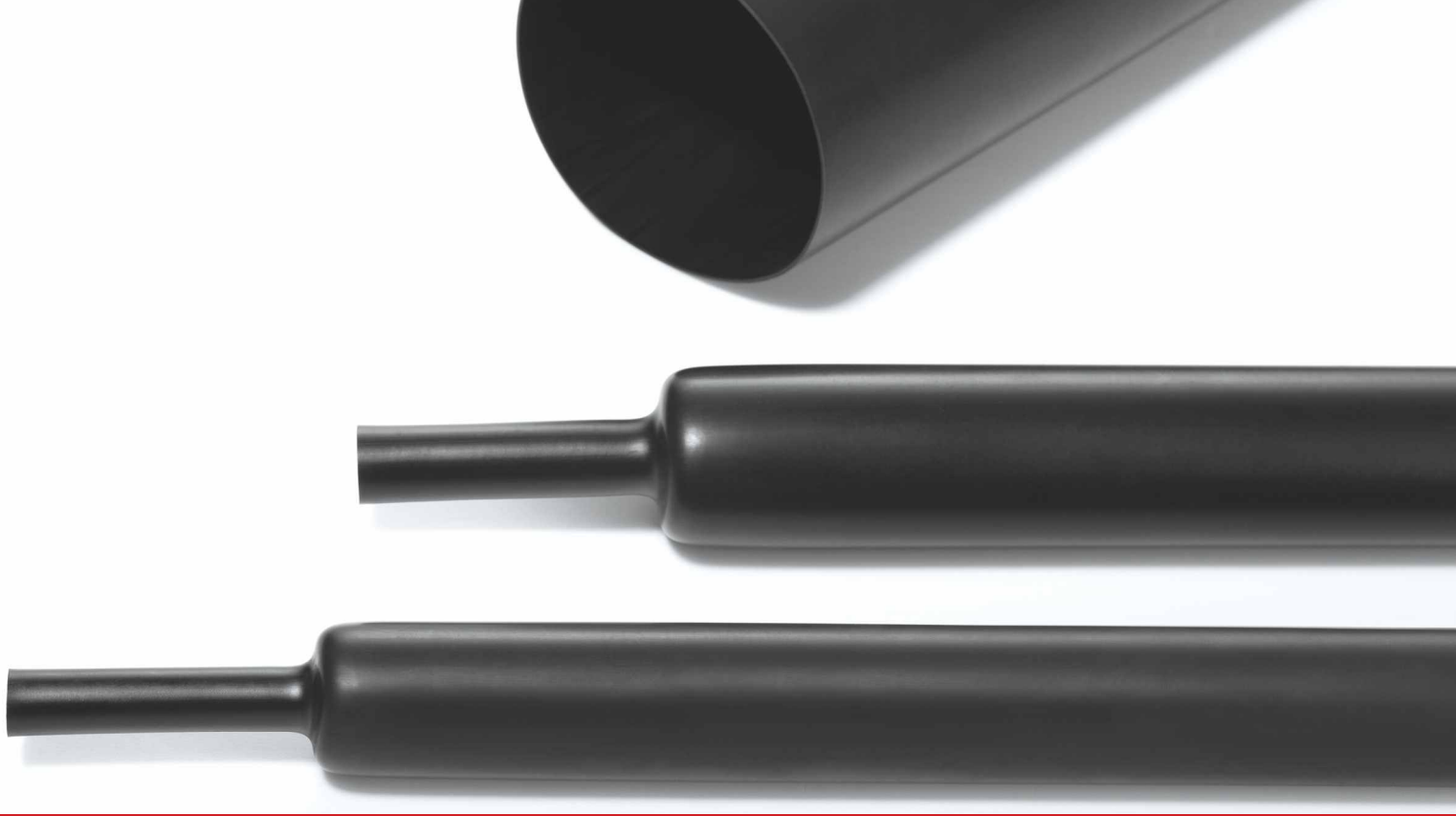
HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HSCT Medium Voltage Tubing

Semi-conductive tubing

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Black.

## ■ Features:

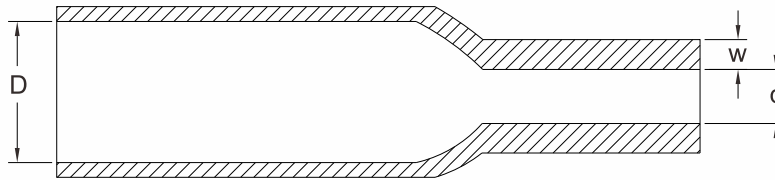
Semi-conductive	UV resistant
Semi rigid	Shrink ratio 3:1
Min. full recovery temp.: 120°C	Application up to 36kV



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	10MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Tensile strength after Aging at 150°C for 168hrs	ASTM D 2671	8MPa min.
Ultimate elongation after Aging at 150°C for 168hrs	ASTM D 2671	200% min.
Heat shock at 250°C/30min	ASTM D 2671	No cracking, dropping
Density	ASTM D 792	1.1g/cm <sup>3</sup> (nom.)
Volume resistivity	ASTM D 257	10 <sup>14</sup> Ω.cm max.
Low temperature flexibility -40°C/4hrs	ASTM D 2671	No cracking
Water absorption	ISO 62	0.15% max.

## ■ Dimensions:



Size (mm)	As Supplied (mm)	After Recovery (mm)		Standard length (m)
	D* (Min.)	d* (Max.)	w* (Min.)	
33/8	33	8	2.4	1.0-1.5
40/12	40	12	2.5	1.0-1.5
55/16	55	16	2.8	1.0-1.5
75/22	75	22	3.0	1.0-1.5
95/25	95	25	3.1	1.0-1.5

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HSC-100 Medium Voltage Tubing

Stress control tubing

■ **Shelf life & storage:**

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

■ **Ordering information:**

Standard colors:  
Black.

■ **Features:**

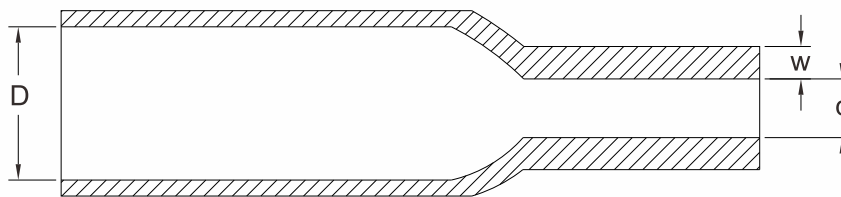
Electric stress relieve	UV resistant
Flexible	Shrink ratio 3:1
Min. full recovery temp.: 120°C	ESI 09-13 compliant
Application up to 24kV	



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	8MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Heat shock at 200°C/30min	ASTM D 2671	No cracking, dropping
Permittivity	IEC 60250	15-35
Volume resistivity	IEC 93	10 <sup>11</sup> Ω.cm min.

## ■ Dimensions:



Size (mm)	As Supplied (mm)	After Recovery (mm)		Standard length
	D*(Min.)	d*(Max.)	w(Min.)	
26/10	26	10	2.1	15m/spool or 1.0-1.5m
30/12	30	12	2.2	15m/spool or 1.0-1.5m
35/15	35	15	2.3	15m/spool or 1.0-1.5m
40/16	40	16	2.4	15m/spool or 1.0-1.5m
47/18	47	18	2.4	15m/spool or 1.0-1.5m
55/21	55	21	2.4	15m/spool or 1.0-1.5m
65/25	65	25	2.4	15m/spool or 1.0-1.5m
75/30	75	30	2.4	15m/spool or 1.0-1.5m

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC T  
Semi-conductive Tubing

**HSC-100**  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar  
Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain  
Shed/Breakout/Boot



# HSC-360 Medium Voltage Tubing

Stress control tubing

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Black.

## ■ Features:

Electric stress relieve	UV resistant
Flexible	Shrink ratio 3:1
Min. full recovery temp.: 120°C	UV resistant
Application up to 36kV	ESI 09-13 compliant

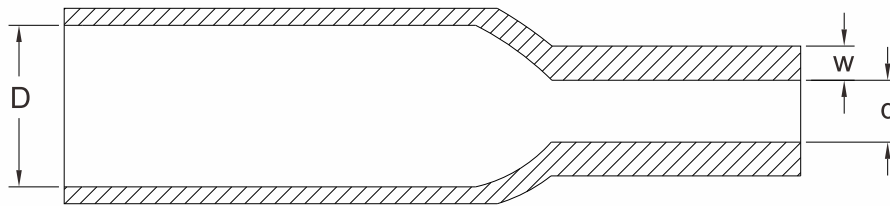




## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	8MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Heat shock at 200°C/30min	ASTM D 2671	No cracking, dropping
Permittivity	IEC 60250	30-55
Volume resistivity	IEC 93	10 <sup>9</sup> Ω.cm min.

## ■ Dimensions:



Size (mm)	As Supplied (mm)	After Recovery (mm)		Standard length
	$D^*$ (Min.)	$d^*$ (Max.)	$w$ (Min.)	
35/15	35	15	2.3	15m/spool or 1.0-1.5m
47/18	47	18	2.4	15m/spool or 1.0-1.5m
55/21	55	21	2.4	15m/spool or 1.0-1.5m
65/25	65	25	2.4	15m/spool or 1.0-1.5m
75/30	75	30	2.4	15m/spool or 1.0-1.5m

$D^*$  = Inner diameter as supplied  
 $d^*$  = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC T  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

**HSC-360**  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HDWT Medium Voltage Tubing

Double layer screened insulating composite tubing

■ **Shelf life & storage:**

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

■ **Ordering information:**

Standard colors:  
Black/Red.

■ **Features:**

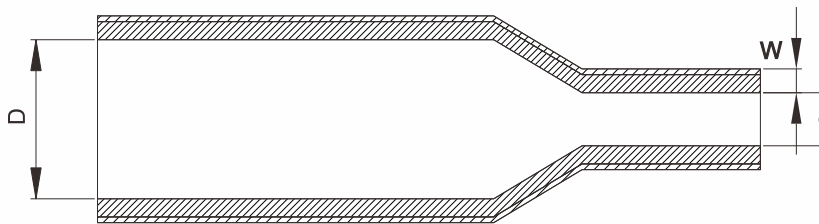
Semi conductive/insulation double layer	Co-extruded double layer
Extra heavy wall of insulation layer	Shrink ratio 3:1
Min. full recovery temp.: 130°C	Application up to 36kV



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Insulation layer		
Tensile strength	ASTM D 2671	10MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	IEC 93	$10^{14} \Omega \cdot \text{cm}$ max.
Water absorption	ISO 62	0.5% max.
Semi conductive layer		
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	ASTM D 257	$10^4 \Omega \cdot \text{cm}$ max.

## ■ Dimensions:



Size (mm)	As Supplied (mm)	After Recovery (mm)		Standard length(m)
	D* (Min.)	d* (Max.)	w(Min.)	
36/12	36	12	5.4	1.0-1.2
45/15	45	15	5.4	1.0-1.2
55/18	55	18	5.4	1.0-1.2
65/22	65	22	6.0	1.0-1.2
73/26	73	26	6.0	1.0-1.2
85/30	85	30	6.0	1.0-1.2
95/34	95	34	6.0	1.0-1.2
100/38	100	38	6.0	1.0-1.2
115/34	115	34	6.0	1.0-1.2
120/45	120	45	6.1	1.0-1.2

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC T  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar  
Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

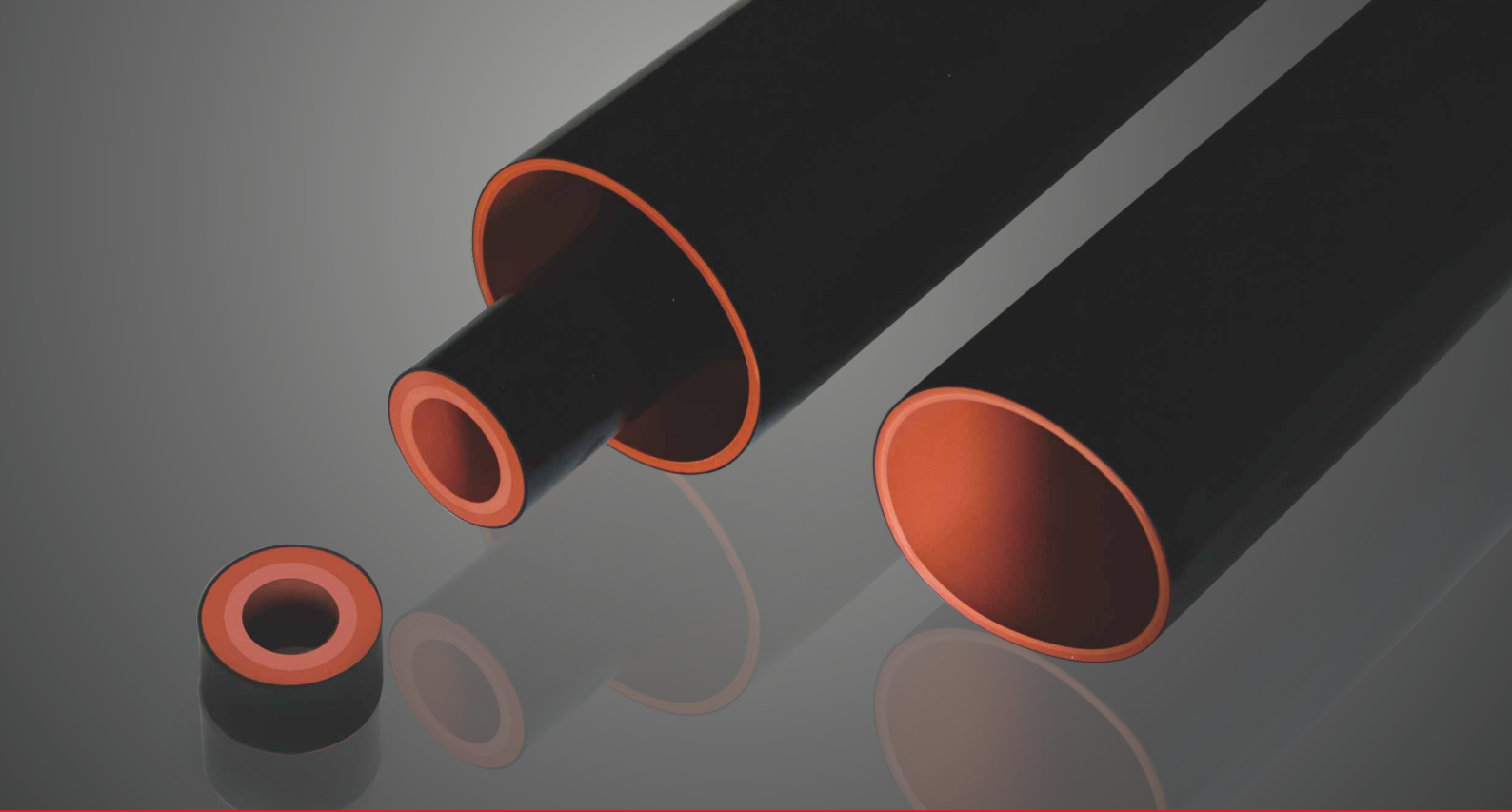
HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain  
Shed/Breakout/Boot



# HTRT Medium Voltage Tubing

Triple layer screened insulating composite tubing

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Black/Red/Red.

## ■ Features:

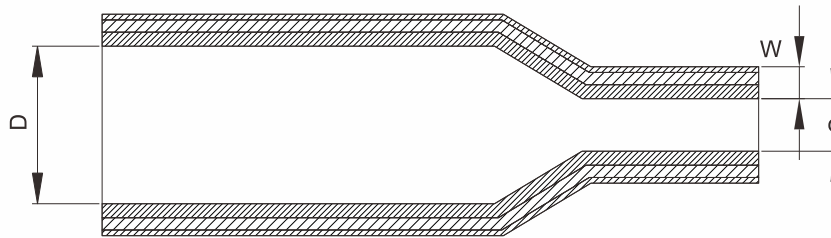
Semi conductive / insulation / elastomer triple layer	Co-Extruded triple layer
Extra heavy wall of insulation layer	Shrink ratio 3:1
Min. full recovery temp.: 130°C	Application up to 36kV



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
<b>Insulation layer</b>		
Tensile strength	ASTM D 2671	10MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	IEC 93	$10^{14}$ $\Omega$ .cm max.
Water absorption	ISO 62	0.5% max.
<b>Elastomer layer</b>		
Tensile strength	ASTM D 2671	5MPa min.
Ultimate elongation	ASTM D 2671	500% min.
Volume resistivity	IEC 93	$10^{14}$ $\Omega$ .cm min.
<b>Semi conductive layer</b>		
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	ASTM D 257	$10^4$ $\Omega$ .cm max.

## ■ Dimensions:



Size (mm)	As supplied (mm)		After recovered (mm)		Standard Length (m)
	D* (Min.)	d* (Max.)	w(Min.)		
36/12	36	12	7.3		1.0-1.22
46/15	46	15	7.3		1.0-1.22
50/18	50	18	7.3		1.0-1.22
56/21	56	21	7.3		1.0-1.22
62/25	62	25	7.3		1.0-1.22
70/30	70	30	7.3		1.0-1.22
80/36	80	36	7.3		1.0-1.22
95/40	95	40	7.3		1.0-1.22
120/50	120	50	7.3		1.0-1.22

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar  
Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain  
Shed/Breakout/Boot



# HGT Medium Voltage Tubing

High insulation tubing

■ **Shelf life & storage:**

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

■ **Ordering information:**

Standard colors:  
Red.

■ **Features:**

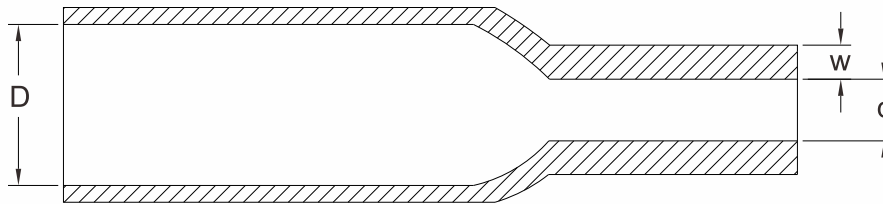
High insulation	Heavy wall
Shrink ratio 3:1	Min. full recovery temp.: 120°C
Application up to 36kV	



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	IEC 93	$10^{14} \Omega \cdot \text{cm}$ min.
Dielectric strength	IEC 60243	20kV/mm(1.0mm) min.
Water absorption	ISO 62	0.5% max.

## ■ Dimensions:



Size (mm)	As Supplied (mm)		After Recovery (mm)		Standard length(m)
	D*(Min.)	d*(Max.)	w(Min.)		
35/12	35	12	3.2		1.0-1.5
45/14	45	14	3.5		1.0-1.5
52/15	52	15	3.9		1.0-1.5
55/18	55	18	3.9		1.0-1.5
66/20	66	20	4.4		1.0-1.5
75/25	75	25	4.7		1.0-1.5
95/30	95	30	4.7		1.0-1.5

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HEGT Heavy Wall Tubing

High insulation/elastomeric double layer tubing

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Red.

## ■ Features:

High insulation	Heavy wall
Shrink ratio 3:1	Min. full recovery temp.: 120°C
RoHS compliant	Application up to 36kV

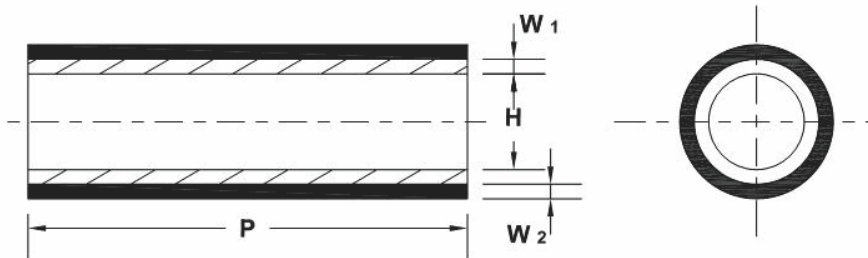




## ■ Typical technical performances:

Property	Test Method	Typical Data
Inner layer		
Tensile strength	ASTM D 2671	5MPa min.
Ultimate elongation	ASTM D 2671	800% min.
Water absorption	ISO 62	0.5% max.
Dielectric strength	IEC 60243	22kV/mm min.
Volume resistivity	IEC 93	10 <sup>14</sup> Ω.cm min.
Outer layer		
Tensile strength	ASTM D2671	12MPa min.
Ultimate elongation	ASTM D2671	300% min.
Dielectric strength	IEC 60243	20kV/mm min.
Volume resistivity	IEC 93	10 <sup>14</sup> Ω.cm min.
Water absorption	ISO 62	0.5% max.

## ■ Dimensions:



Type	H	H	W1	W2	W1+W2	P
	a (mm) Min.	b (mm) Max.	b (mm) nom.	b (mm) Min.	b (mm) Min.	Standard Length (m)
HEGT 42/16	42	16	1.9	2.0	3.9	0.3 8-1.5
HEGT 54/21	54	21	1.9	2.0	3.9	0.3 8-1.5
HEGT 62/26	62	26	1.9	2.0	3.9	0.3 8-1.5
HEGT 55/20	55	20	2.9	3.0	5.9	0.3 8-1.22
HEGT 62/25	62	25	2.9	3.0	5.9	0.3 8-1.22
HEGT 70/30	70	30	2.9	3.0	5.9	0.3 8-1.22
HEGT 80/34	80	34	2.9	3.0	5.9	0.3 8-1.22
HEGT 95/40	95	40	2.9	3.0	5.9	0.3 8-1.22

a = As supplied  
b = After free recovery

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSCT  
Semi-conductive  
Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

**HEGT**  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar  
Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain  
Shed/Breakout/Boot



# HOT Medium Voltage Tubing

Oil resistant tubing

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Transparency.

## ■ Features:

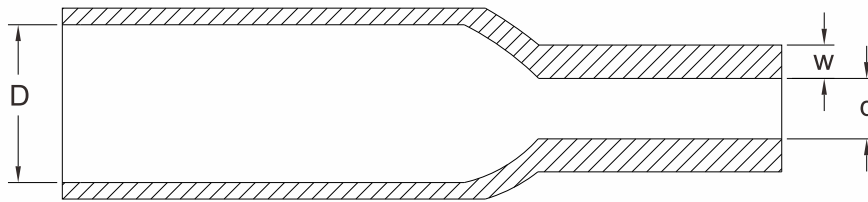
Oil resistant	Translucence
Shrink ratio 2.5:1	Min. full recovery temp.: 130°C
Application up to 36kV	



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	IEC 93	$10^{14} \Omega \cdot \text{cm}$ min.
Dielectric strength	IEC 60243	20kV/mm (1.0mm) min.
Water absorption	ISO 62	0.5% max.
Oil resistance	Transform oil/23°C/24hrs	Weight increase 10% max.

## ■ Dimensions:



Size (mm)	As Supplied (mm)		After Recovery (mm)		Standard length
	D*(Min.)	d*(Max.)	w(Min.)		
19/6	19	6	2.00		30m/spool
25/10	25	10	2.00		30m/spool
30/12	30	12	2.00		30m/spool
35/14	35	14	2.50		30m/spool
40/16	40	16	2.50		30m/spool
50/20	50	20	2.50		15m/spool
65/25	65	25	2.95		15m/spool
85/35	85	35	2.95		15m/spool

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC T  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

**HOT**  
Oil Resistant Tubing

HBTM/HBTH  
Busbar  
Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

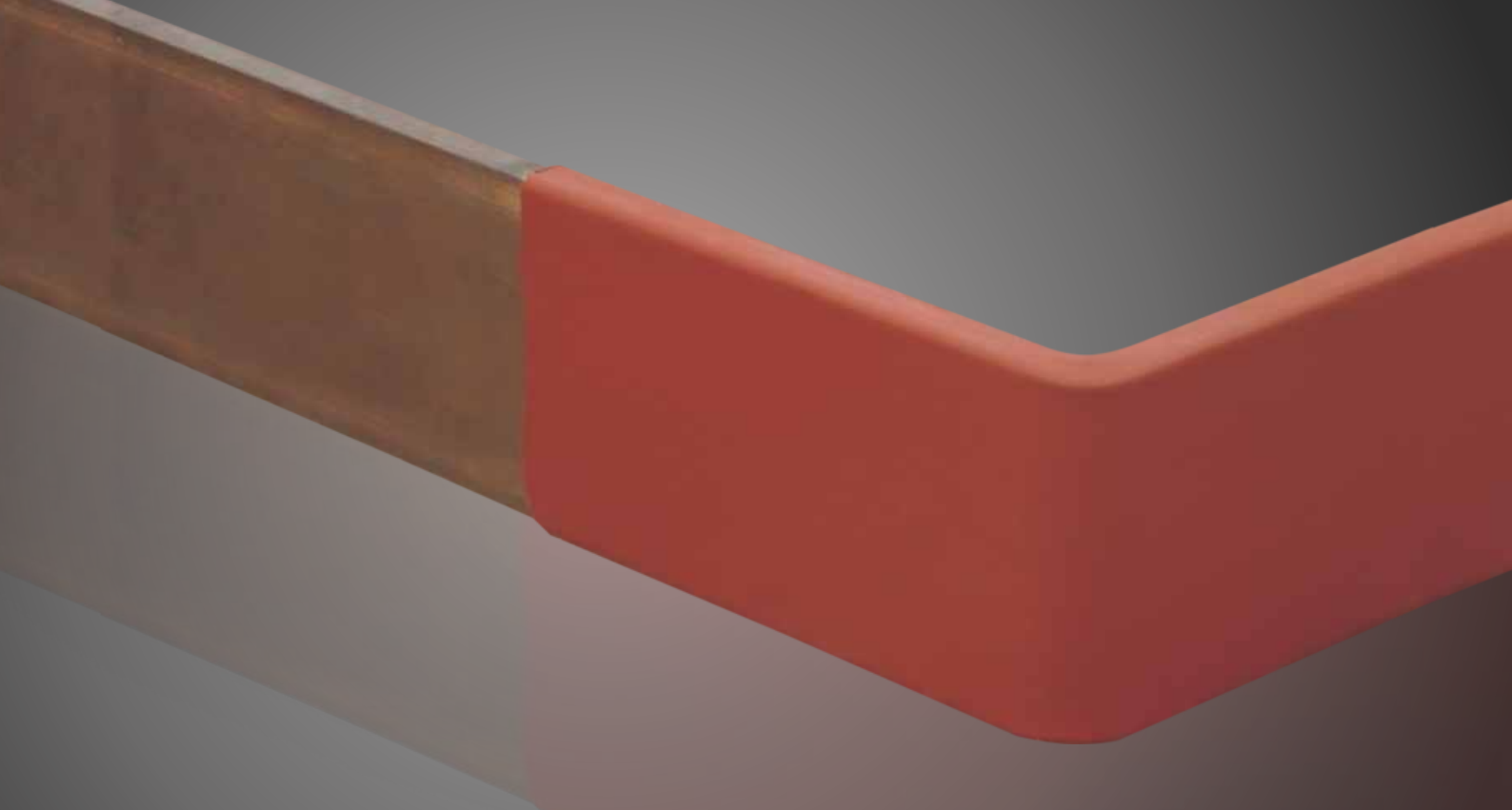
HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain  
Shed/Breakout/Boot



# HBTM/HBTH Medium Voltage Tubing

Medium/heavy wall tubing for busbar insulation

■ **Shelf life & storage:**

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

■ **Ordering information:**

Standard colors:  
Brown Red.

■ **Features:**

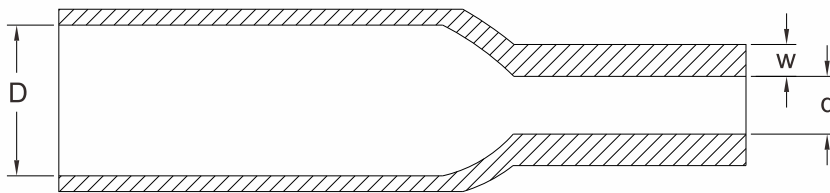
Tracking resistant	UV resistant
Flame retardant	Flexible
Shrink ratio 2,5:1	Min. full recovery temp.: 120°C
IEC 60684-3-283 compliant	Application up to 36kV



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	400% min.
Tensile strength after Aging at 120°C for 168hrs	ASTM D 2671	10MPa min.
Ultimate elongation after Aging at 120°C for 168hrs	ASTM D 2671	300% min.
Density	ASTM D 792	1.2~1.3g/cm <sup>3</sup> (nom.)
Dielectric strength	IEC 60243	12kV/mm(3mm) min.
Volume resistivity	IEC 93	10 <sup>12</sup> Ω.cm min.
Flammability	IEC 60684-2 Method C	60sec max.
Low temperature flexibility -40°C/4hrs	ASTM D 2671 Proc.C	No cracking
Permittivity	IEC 60250	5 max.

## ■ Dimensions:



Size (mm)	As supplied (mm)		After recovered (mm)		Standard length	Size (mm)	As supplied (mm)		After recovered (mm)		Standard length
	D*(Min.)	d*(Min.)	d*(Max.)	w(Min.)			D*(Min.)	d*(Min.)	d*(Max.)	w(Min.)	
<b>Medium wall tubing-HBTM</b>											
15/6	15	6	2.0	30m/spool	100/40	100	40	2.8	15m/spool		
30/12	30	12	2.3	30m/spool	120/50	120	50	2.8	15m/spool		
40/16	40	16	2.5	30m/spool	150/60	150	60	3.3	1.0-1.5m		
50/20	50	20	2.5	15m/spool	205/75	205	75	3.8	1.0-1.2m		
75/30	75	30	2.6	15m/spool	235/75	235	75	3.8	1.0-1.2m		
<b>Heavy wall tubing-HBTH</b>											
25/10	25	10	4.0	1.0-1.5m	120/40	120	40	4.1	1.0-1.5m		
40/16	40	16	4.0	1.0-1.5m	150/60	150	60	3.9	1.0-1.5m		
75/25	75	25	4.0	1.0-1.5m	180/75	180	75	4.1	1.0-1.2m		

D\* = Inner diameter as supplied  
d\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

**HBTM/HBTH**  
Busbar  
Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain  
Shed/Breakout/Boot



# Mastic tape

Tape 55/Tape 65/Tape 75

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:

Tape 55: Yellow

Tape 65: Red

Tape 75: Black

## ■ Features:

Tape 55: Stress relief mastic

Stress relief	Void filling
Oil resistance	High permittivity

Tape 65: Anti-tracking mastic

Anti-tracking	Void filling
Excellent electrical properties	Waterproof

Tape 75: Black sealing mastic

UV resistance	Self amalgamating
Watertight seal	Excellent electrical properties



## ■ Typical technical performances:

Test Items	Test Method	Typical Data
TAPE55 stress relief mastic		
Density	ASTM D792	1.3 g/m <sup>3</sup>
Tensile strength	ASTM D 638	0.1 MPa
Ultimate elongation	ASTM D 638	>1000%
Dielectric strength	IEC 250	>10 kV/mm
Dielectric constant	IEC 250	10-15
Volume resistance	ASTM D 527	10 <sup>9</sup> —10 <sup>12</sup> Ω .cm
50Hz Loss factor(tgδ)		0.035
Service temperature (max)		-20 to +90°C
Adhesive and self-amalgamation		Good
TAPE65 anti-tracking mastic		
Density	ASTM D792	1.2 g/m <sup>3</sup>
Tensile strength	ASTM D 638	0.1 MPa
Ultimate elongation	ASTM D 638	>1000%
Dielectric strength	IEC 250	≥ 15 kV/mm
Dielectric constant	IEC 250	3 max.
Volume resistance	ASTM D 527	10 <sup>13</sup> Ω .cm
50Hz Loss factor(tgδ)		0.035
Service temperature (max)		-20 to +90°C
Adhesive and self-amalgamation		Good
TAPE75 black sealing mastic		
Density	ASTM D792	1.2 g/m <sup>3</sup>
Tensile strength	ASTM D 638	0.1 MPa
Ultimate elongation	ASTM D 638	>1000%
Dielectric strength	IEC 250	≥ 15 kV/mm
Dielectric constant	IEC 250	2-3
Volume resistance	ASTM D 527	10 <sup>13</sup> Ω .cm
50Hz Loss factor(tgδ)		0.035
Service temperature (max)		-20 to +90°C
Adhesive and self-amalgamation		Good

## ■ Dimensions:

Type	Thickness (mm)	Width (mm)	Length (m)
Tape 55	1.6	25	0.5, 1.5, 30
Tape 65	0.8	25	1.5,50
Tape 75	3.0	38	1.5,20

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

H SCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HLB Moulded Parts

Low voltage breakout 2 to 5 cores

■ **Shelf life & storage:**

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

■ **Ordering information:**

Standard colors:  
Black.

■ **Features:**

Spiral adhesive coated	Insulation
UV resistant	Shrink ratio 2-3:1
Min. full recovery temp.: 120°C	

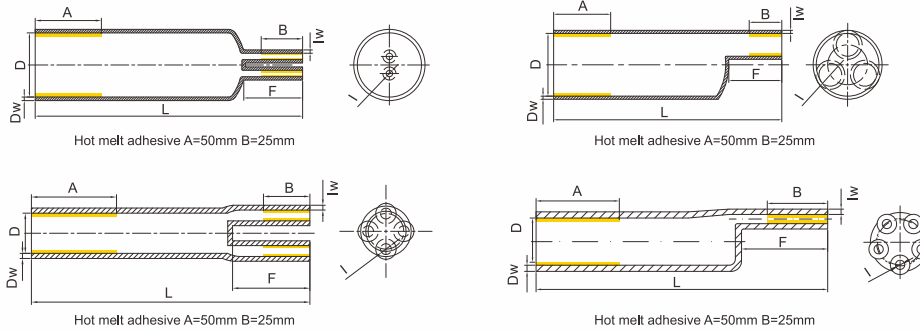




## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	IEC 93	$10^{14} \Omega \cdot \text{cm}$ min.
Dielectric strength	IEC 60243	12kV/mm(1.0mm) min.
Water absorption	ISO 62	0.5% max.
Heat shock at 225°C/4hrs	ASTM D 2671	No cracking, drooping
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>

## ■ Dimensions:



Size (mm)	As supplied(mm)±10%		D (mm)		l (mm)		Recovered length(mm) ±10%		Recovered wall(mm) ±20%	
	l*	f*	a* (Min.)	b* (Max.)	a* (Min.)	b* (Max.)	L	F	Dw	lw
<b>2 Cores cable breakout</b>										
HLB205-22/8	55	16	22	12	11	3.5	60	18	2.2	1.8
HLB210-30/12	80	22	30	14	14	4.5	84	21	2.6	2.4
HLB215-40/16	100	30	40	16	15	5.0	110	30	2.2	2.2
HLB220-60/23	95	21	60	23	25	8.0	105	25	2.4	2.4
HLB230-90/60	165	45	90	60	30	8.0	170	48	3.0	3.0
HLB250-160/90	290	170	160	92	50	30	310	160	4.5	4.5
<b>3 Cores cable breakout</b>										
HLB310-38/16	100	35	38	16	15	5	110	30	2.3	2.0
HLB320-60/25	170	40	60	25	26	8	175	45	3.2	2.8
HLB325-70/28	175	45	70	28	32	10	180	45	3.3	3.0
HLB330-80/38	190	50	80	38	34	16	195	55	3.5	3.3
HLB340-110/50	220	55	110	50	46	19	230	60	3.8	3.5
HLB350-125/57	230	58	125	57	55	20	240	65	3.7	3.3
HLB360-140/70	250	58	140	70	62	26	270	68	3.9	3.6
HLB370-170/77	250	55	170	77	75	28	270	68	3.9	3.6
<b>4 Cores cable breakout</b>										
HLB410-40/15	95	23	40	15	12	5.0	100	24	2.2	2.0
HLB420-55/21	145	40	55	21	20	5.5	150	42	2.9	2.7
HLB425-65/26	170	45	65	26	25	7.5	180	50	3.3	3.1
HLB430-75/26	180	45	75	26	28	7.5	190	50	3.3	3.1
HLB440-82/37	170	46	82	37	30	11	180	45	3.3	3.0
HLB445-90/37	170	46	90	37	32	11	180	50	3.3	3.0
HLB450-100/47	180	55	100	47	38	12	190	55	3.9	3.3
HLB460-125/52	215	50	125	52	50	15	240	68	4.0	4.0
HLB470-160/70	240	50	160	70	64	20	270	68	3.8	3.7
<b>5 Cores cable breakout</b>										
HLB510-40/19	90	20	40	19	13	4.5	85	20	2.5	2.2
HLB520-55/24	145	36	55	24	18	5.5	150	40	3.0	2.6
HLB530-80/33	160	46	80	33	26	8	175	50	3.2	3.0
HLB540-100/42	185	52	100	42	35	10	195	55	3.5	3.2

l\* = The length of L as supplied  
f\* = The length of F as supplied

a\* = Inner diameter as supplied  
b\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HSEC Moulded Parts

## Insulating end cap

### ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

### ■ Ordering information:

Standard colors:  
Black.

### ■ Features:

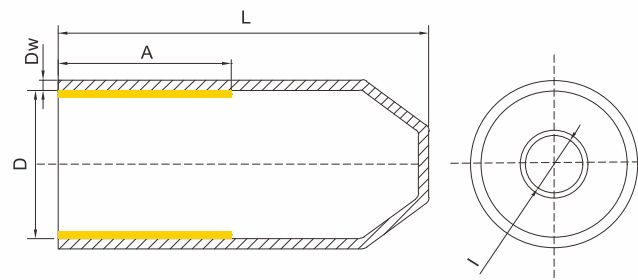
With or without Spiral adhesive coated	UV resistant
Both insulating and conductive type available	Shrink ratio 3:1
Min. full recovery temp.: 120°C	



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	IEC 93	10 <sup>14</sup> Ω.cm min.
Dielectric strength	IEC 60243	12kV/mm(1.0mm) min.
Water absorption	ISO 62	0.5% max.
Heat shock at 225°C/4hrs	ASTM D 2671	No cracking, dropping
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>

## ■ Dimensions:



A=Spiral hot melt adhesive

Size (mm)	As supplied(mm)			After recovered(mm)		
	L*(±10%)	D*(Min.)	A*(±10%)	d*(±10%)	l*(±10%)	Dw(±10%)
Cable end cap-HSEC, standard length						
HSEC 105 12/4	38	12	15	4	40	2.6
HSEC 110 14/5	45	14	18	5	42	2.2
HSEC 115 20/6	65	20	25	6	55	2.5
HSEC 120 25/8.5	75	25	30	8.5	65	2.5
HSEC 130 35/16	92	35	35	16	83	3.3
HSEC 135 40/15	95	40	40	15	75	3.3
HSEC 140 55/26	114	55	50	26	105	3.5
HSEC 150 75/36	132	75	55	36	115	4.2
HSEC 160 100/52	153	100	70	52	130	5.0
HSEC 170 120/60	155	120	70	60	150	5.0
HSEC 180 145/60	160	145	70	60	150	5.0
HSEC 190 160/82	160	160	70	82	133	4.5
HSEC 200 200/90	170	200	70	90	145	4.5

L\* = Length of end cap as supplied

D\* = Inner diameter as supplied

A\* = Length of adhesive after fully recovered

d\* = Inner diameter after fully recovered

l\* = Length of end cap after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

**HSEC**  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HCFT Moulded Parts

## Cable feed throughs

### ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

### ■ Ordering information:

Standard colors:  
Black.

### ■ Features:

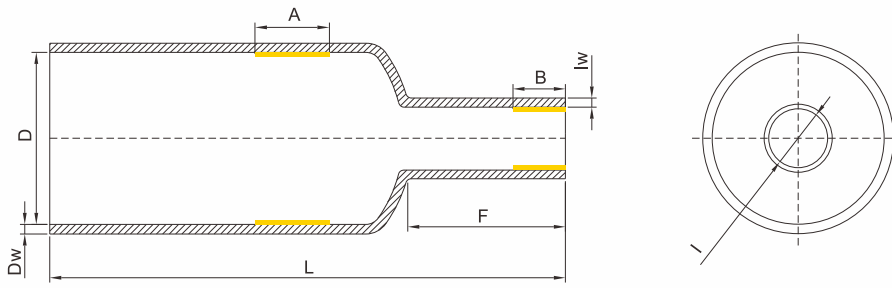
Sealing mastic coated	Insulation
UV resistant	Shrink ratio 2-3:1
Min. full recovery temp.: 130°C	



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	IEC 93	$10^{14} \Omega \cdot \text{cm}$ min.
Dielectric strength	IEC 60243	12kV/mm(1.0mm) min.
Water absorption	ISO 62	0.5% max.
Heat shock at 225°C/4hrs	ASTM D 2671	No cracking, dropping
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>

## ■ Dimensions:



Hot melt adhesive A=50mm B=25mm

Size	As supplied (mm)±10%		D (mm)		l (mm)		Recovered length(mm) ±10%		Recovered wall(mm) ±20%	
	(mm)	l*	f*	a* (Min.)	b* (Max.)	a* (Min.)	b* (Max.)	L	F	Dw
HCFT 100 (45/15-15/5)	110	45	45	15	15	5	130	45	2.8	2.8
HCFT 110 (85/42-15/5)	110	45	85	42	15	5	130	45	2.8	2.8
HCFT 120 (60/30-45/10)	125	55	60	30	45	10	135	55	2.6	4.4
HCFT 130 (100/52-20/8)	150	55	100	52	20	8	170	65	3.0	3.0
HCFT 135 (150/92-14/5)	130	55	150	92	14	5	150	55	3.5	3.5
HCFT 140 (160/92-60/20)	125	35	160	92	60	20	145	55	3.0	3.2
HCFT 150 (160/92-100/45)	125	35	160	92	100	45	145	55	3.5	3.2

l = The length of L as supplied

f = The length of F as supplied

a\* = Inner diameter as supplied

b\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC T  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain Shed/Breakout/Boot



# HCB

Moulded Parts  
3 cores conductive breakout

■ **Shelf life & storage:**

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

■ **Ordering information:**

Standard colors:  
Black.

■ **Features:**

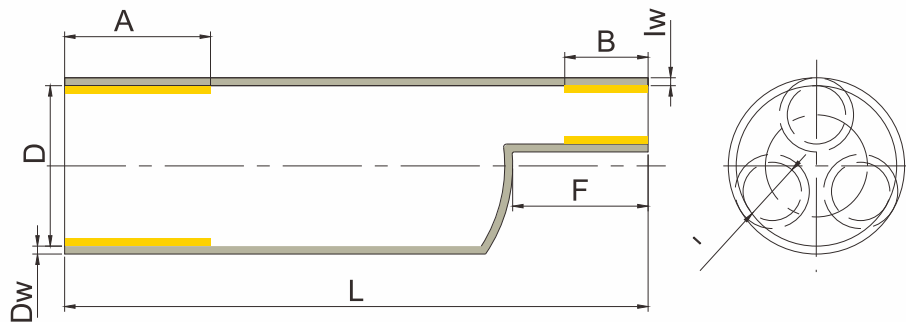
Sealing mastic coated	Conductive
UV resistant	Shrink ratio 2-3:1
Min. full recovery temp.: 130°C	



## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	ASTM D 257	$10^4 \Omega \cdot \text{cm}$ max.
Water absorption	ISO 62	1% max.
Heat shock at 225°C/4hrs	ASTM D 2671	No cracking, dropping
Density	ASTM D 792	1.0~1.1g/cm <sup>3</sup>

## ■ Dimensions:



Hot melt adhesive A=50mm B=25mm

Size (mm)	As supplied (mm)±10%		D (mm)		l (mm)		Recovered length (mm)±10%		Recovered wall(mm) ±20%	
	l*	f*	a* (Min.)	b* (Max.)	a* (Min.)	b* (Max.)	L	F	Dw	lw
HCB320-60/25	170	40	60	25	26	8	170	40	2.8	2.6
HCB330-80/38	210	50	80	38	34	16	215	55	3.5	3.2
HCB340-110/50	210	55	110	50	46	19	230	60	3.5	3.3
HCB350-125/57	220	60	125	57	55	20	240	68	3.5	3.2

l = The length of L as supplied  
 f = The length of F as supplied  
 a\* = Inner diameter as supplied  
 b\* = Inner diameter after fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

HSC T  
Semi-conductive  
Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar  
Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain  
Shed/Breakout/Boot



# HAS/HMB/HMR Moulded Parts

Anti-tracking rain shed/Anti-tracking 3 cores breakout/Anti-tracking right angle/straight boot

## ■ Shelf life & storage:

Heat Shrink Product provided by Hongshang has a over 5 year's shelf life from date of manufacture when stored in a humidity controlled environment (-10°C to 40°C and <75% relative humidity).

## ■ Ordering information:

Standard colors:  
Red.

## ■ Features:

Sealing mastic coated	Anti-tracking
UV resistant	Shrink ratio 2-3:1
Min. full recovery temp.: 130°C	

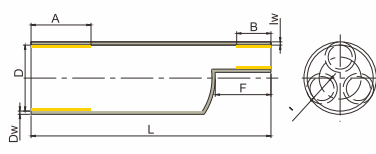
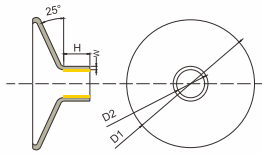




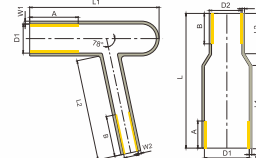
## ■ Typical technical performances:

Test Items	Test Method	Test Requirements
Tensile strength	ASTM D 2671	12MPa min.
Ultimate elongation	ASTM D 2671	200% min.
Volume resistivity	IEC 93	$10^{14} \Omega \cdot \text{cm}$ min.
Dielectric strength	IEC 60243	10kV/mm(3mm) min.
Water absorption	ISO 62	0.5% max.
Heat shock at 225°C/4hrs	ASTM D 2671	No cracking, dropping
Density	ASTM D 792	1.1~1.3g/cm <sup>3</sup>

## ■ Dimensions:



Hot melt adhesive A=50mm B=25mm



Anti-track red mastic A=50mm B=25mm

### Anti-tracking rain shed-HAS

Size (mm)	D2(mm)		As supplied(mm)			After recovered(mm)	
	a*(Min.)	b*(Min.)	H(Min.)	D1 (Nom.)	W(±10%)	h(Min.)	
HAS 110 35/12	35	12	20	95	3.0	18	
HAS 120 48/20	48	20	28	120	3.5	20	
HAS 130 60/25	60	25	30	120	3.3	20	
HAS 140 60/30	60	30	35	140	3.5	30	
HAS 150 75/30	75	30	35	140	3.3	30	
HAS 160 100/35	100	35	35	140	3.3	30	

### Anti-tracking 3 cores breakout-HMB

Size (mm)	As supplied (mm) ±10%		D(mm)		l (mm)		Recovered length(mm)±10%		Recovered wall(mm)±20%	
	l	f	a*(Min.)	b*(Max.)	a*(Min.)	b*(Max.)	L	F	Dw	lw
HMB320-60/ 25	175	38	60	25	26	8	170	40	3.0	2.5
HMB330-80/38	200	50	80	38	34	16	210	55	3.5	3.3
HMB340-110/50	210	55	110	50	46	19	230	55	3.8	3.5
HMB350-125/57	220	58	125	57	55	20	240	60	3.7	3.3
HMB360-140/70	250	58	140	70	62	26	270	65	3.8	3.6

### Anti-tracking right angle/straight boot-HMR

Size (mm)	As supplied (mm)		After recovered(mm)							
	D1 (Min.)	D2 (Min.)	D1 (Max.)	D2 (Max.)	L1 (Nom.)	L2 (±10%)	L (±10%)	W1 (±10%)	W2 (±10%)	
Right Angle	HMR110(80/36-35/18)	80	35	36	18	160	120	/	3.5	3.5
	HMR120(80/36-50/18)	80	50	36	18	160	120	/	3.5	3.5
	HMR130(80/36-50/27)	80	50	36	27	145	135	/	3.6	3.3
	HMR140(95/38-70/28)	95	70	38	28	155	130	/	4.2	4.5
	HMR150(145/72-68/34)	145	68	72	34	195	145	/	3.8	3.8
Straight	HMR170(80/35-58/20)	80	58	35	20	145	30	200	3.0	3.0
	HMR180(140/65-90/33)	140	90	65	33	155	40	320	3.8	3.8

a\* = As supplied  
b\* = After fully recovered

HRA2/HR2  
Medium Wall Tubing

HRTM  
Medium Wall Tubing

HRA3/HR3  
Heavy Wall Tubing

HRTH  
Heavy Wall Tubing

HRA-6X  
Heavy Wall Tubing

HRS  
Medium Wall Tubing

HAT/HATA  
Anti-tracking Tubing

H SCT  
Semi-conductive Tubing

HSC-100  
Stress Control Tubing

HSC-360  
Stress Control Tubing

HDWT  
Twin Layer Tubing

HTRT  
Triple Layer Tubing

HGT  
High Insulation Tubing

HEGT  
High Insulation Tubing

HOT  
Oil Resistant Tubing

HBTM/HBTH  
Busbar Insulation Tubing

Mastic tape  
Tape 55/  
Tape 65/Tape 75

HLB  
Low Voltage Breakout

HSEC  
Insulating End Cap

HCFT  
Cable Feed Thoughts

HCB  
Conductive Breakout

HAS/HMB/HMR  
Anti-tracking Rain  
Shed/Breakout/Boot







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