



# 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:

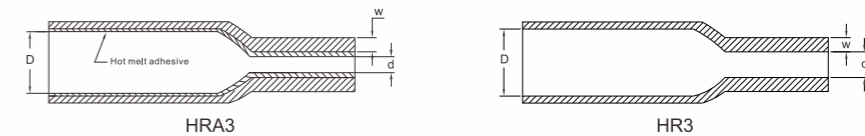
Dual wall, hot melt adhesive inner liner (HRA3)	UV resistant
Flammable	Semi-rigid
Shrink ratio 3:1	Min. full recovery temp.: 120°C
Supply in cut piece with max. 1.5m in length	



### 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 Heavy wall tubing with hot melting adhesive											
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.)		
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)		Standard length (m)
	D* (Min.)	d* (Max.)	w* (Min.)				D* (Min.)	d* (Max.)	w* (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