



TECHNICAL DATASHEET

A - MEDIUM & HEAVY WALL TUBING



Technical Performances

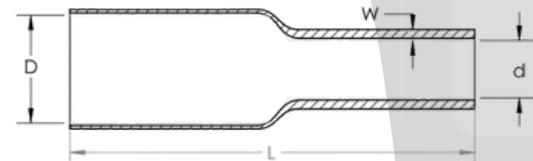
Test Item	Test Method	Requirement
Tensile Strength	ASTM D 2671	Minimum 12 MPa
Ultimate Elongation	ASTM D 2671	Minimum 350%
Tensile Strength after Aging (150°C, 168 hrs)	ASTM D 2671	Minimum 12 MPa
Ultimate Elongation after Aging (150°C, 168 hrs)	ASTM D 2671	Minimum 300%
Density	ASTM D 792	1.0 to 1.1 g/cm ³
Dielectric Strength	ASTM D 60243	Minimum 12 kV/mm (2 mm thick)
Volume Resistivity	ASTM D 2671	Minimum 10 ¹² Ω·cm
Low Temperature Flexibility (-40°C, 4 hrs)	ASTM D 2671	No cracking of outer jacket
Hot Melt Adhesive Softening Point	ASTM E28	85 ± 5°C
Peel Strength (PE)	ASTM D 2671	Minimum 4 N/cm
Water Absorption	ISO 62	Maximum 0.2%

Dimensions

NRA2 Medium wall tubing with hot melting adhesive									
Size (mm)	Supplied (mm)	Recovered(mm)		Standard length (m)	Size (mm)	Supplied (mm)	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	1.0-1.5
55/16	55	16	2.7	1.0-1.5	350/100	350	100	4.3	1.0-1.5
65/19	65	19	2.9	1.0-1.5	410/150	410	150	4.3	1.0-1.5
75/22	75	22	3.0	1.0-1.5					

NR2 Medium wall tubing without hot melting adhesive									
Size (mm)	Supplied (mm)	Recovered(mm)		Standard length (m)	Size (mm)	Supplied (mm)	Recovered(mm)		Standard length (m)
	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	265/75	265	75	3.7	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	410/150	410	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



Technical Performances

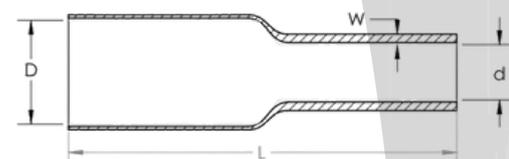
Test Item	Test Method	Requirement
Tensile Strength	ASTM D 2671	Minimum 12 MPa
Ultimate Elongation	ASTM D 2671	Minimum 350%
Tensile Strength after Aging (150°C, 168 hrs)	ASTM D 2671	Minimum 12 MPa
Ultimate Elongation after Aging (150°C, 168 hrs)	ASTM D 2671	Minimum 300%
Density	ASTM D 792	1.0 to 1.1 g/cm ³
Dielectric Strength	ASTM D 60243	Minimum 12 kV/mm (2 mm thick)
Volume Resistivity	ASTM D 2671	Minimum 10 ¹² Ω-cm
Low Temperature Flexibility (-40°C, 4 hrs)	ASTM D 2671	No cracking of outer jacket
Hot Melt Adhesive Softening Point	ASTM E28	105 ± 5°C
Peel Strength (PE)	ASTM D 2671	Minimum 4 N/cm
Water Absorption	ISO 62	Maximum 0.2%



Dimensions

NRTM Co-extruded medium wall tubes with hot melt adhesive lining										
Size (mm)	Supplied (mm)	Recovered (mm)			Standard length (m)	Size (mm)	Supplied (mm)			Standard length (m)
		D*	d*	w*			D*	d*	w*	
	(Min.)	(Max.)	(Min.)			(Min.)	(Max.)	(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* = Diameter as supplied
d* = Diameter after recovered
W* = Thickness of sleeve as supplied
w* = Thickness of sleeve after fully recovered



Technical Performances

Test Item	Test Method	Requirement
Tensile Strength	ASTM D 2671	Minimum 12 MPa
Ultimate Elongation	ASTM D 2671	Minimum 350%
Tensile Strength after Aging (150°C, 168 hrs)	ASTM D 2671	Minimum 12 MPa
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Dimensions

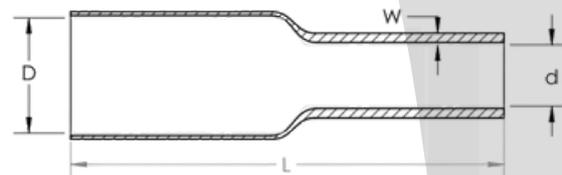
NRA3 Heavy wall tubing with hot melting adhesive

Size (mm)	Supplied (mm)	Recovered(mm)		Standard length (m)	Size (mm)	Supplied (mm)	Recovered(mm)		Standard length (m)
		D*(Min.)	d*(Max.)				w*(Min.)	D*(Min.)	
9/3	9	2	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

NR3 Heavy wall tubing without hot melting adhesive

Size (mm)	Supplied (mm)	Recovered(mm)		Standard length (m)	Size (mm)	Supplied (mm)	Recovered(mm)		Standard length (m)
		D*(Min.)	d*(Max.)				w*(Min.)	D*(Min.)	
9/3	9	3	2.0	1.0-1.5	95/29	95	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					

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



Technical Performances

Test Property	Test Method	Requirement
Tensile Strength	ASTM D 2671	Minimum 12 MPa
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Tensile Strength after Aging (150°C, 168 hrs)	ASTM D 2671	Minimum 12 MPa
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Density	ASTM D 792	1.0 to 1.1 g/cm ³
Dielectric Strength	ASTM D 60243	Minimum 12 kV/mm (2 mm thickness)
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Peel Strength (PE)	ASTM D 2671	Minimum 4 N/cm
Water Absorption	ISO 62	Maximum 0.2%

Dimensions

Size (mm)	Supplied (mm)			Standard length (m)	Size (mm)	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
w* = Outer Layer Wall thickness after fully recovered

