

## Chemical Composition

	C250, C250L0	C350, C350L0	C450, C450L0
	<b>Max</b>	<b>Max</b>	<b>Max</b>
Carbon	0.12	0.20	0.20
Silicon	0.05	0.45	0.45
Manganese	0.50	1.60	1.70
Phosphorus	0.03	0.03	0.03
Sulphur	0.03	0.03	0.03

## Mechanical Properties

	C250, C250L0	C350, C350L0	C450, C450L0
	<b>Min</b>	<b>Min</b>	<b>Min</b>
Tensile	320 MPa	430 MPa	500 MPa
Yield	250 MPa	350 MPa	450 MPa
Elongation	18%	16%	12%

## AS1163: CIRCULAR HOLLOW SECTIONS (CHS)

Outside Diameter (mm)			Thickness mm	kg/m
std	min	max		
17.2	16.7	17.7	2.3	0.845
			2.9	1.02
21.3	20.8	21.8	2.6	1.20
			3.2	1.43
			3.6	1.57
26.9	26.4	27.4	2.6	1.56
			3.2	1.87
			4.0	2.26
33.7	33.2	34.2	3.2	2.41
			4.0	2.93
			4.5	3.24
42.4	41.9	42.9	3.2	3.09
			4.0	3.79
			4.9	4.53
48.3	47.8	48.8	3.2	3.56
			4.0	4.37
			5.4	5.71
60.3	59.8	60.8	3.6	5.03
			4.5	6.19
			5.4	7.31
76.1	75.34	76.86	2.3	4.19
			3.2	5.75
			3.6	6.44
			4.5	7.95
			5.9	10.2

Outside Diameter (mm)			Thickness mm	kg/m
std	min	max		
88.9	88.01	89.79	2.6	5.53
			3.2	6.76
			4.0	8.38
			4.8	9.96
			5.0	10.3
101.6	100.58	102.62	5.5	11.3
			5.9	12.1
			2.6	6.35
			3.2	7.77
			4.0	9.63
114.3	113.16	115.44	5.0	11.9
			3.2	8.77
			3.6	9.83
			4.5	12.2
			4.8	13.0
139.7	138.3	141.1	5.4	14.5
			6.0	16.0
			3.0	10.1
			3.5	11.8
			5.0	16.6
165.1	163.45	166.75	5.4	17.9
			3.0	12.0
			3.5	13.9
			5.0	19.7
			5.4	21.3
168.3	166.62	169.98	4.8	19.4
			6.4	25.6
			7.1	28.2

### TOLERANCE

OD	≤ 50 mm: ± 0.5 mm
	> 50 mm: ± 1 %
WT	±10%
Weight	- 4%, + Not limit

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## Mechanical Properties

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	<b>Min</b>	<b>Min</b>	<b>Min</b>
Tensile	320 MPa	430 MPa	500 MPa
Yield	250 MPa	350 MPa	450 MPa
Elongation	18%	16%	12%

## AS1163: SQUARE HOLLOW SECTIONS (SHS)

Nominal Size (mm)			Thickness (mm)								
			1.6	2.0	2.5	3.0	3.5	4.0	5.0	6.0	9.0
std	min	max	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m
20 x 20	19.5 x 19.5	20.5 x 20.5	0.873	1.05							
25 x 25	24.5 x 24.5	25.5 x 25.5	1.12	1.36	1.64	1.89					
30 x 30	29.5 x 29.5	30.5 x 30.5	1.38	1.68	2.03	2.36					
35 x 35	34.5 x 34.5	35.5 x 35.5	1.63	1.99	2.42	2.83					
40 x 40	39.5 x 39.5	40.5 x 40.5	1.88	2.31	2.82	3.30		4.09			
50 x 50	49.5 x 49.5	50.5 x 50.5	2.38	2.93	3.60	4.25		5.35	6.39	7.32	
65 x 65	64.35 x 64.35	65.65 x 65.65		3.88	4.78	5.66			8.75	10.20	
75 x 75	74.25 x 74.25	75.75 x 75.75		4.50	5.56	6.60	7.53	8.49	10.30	12.00	
89 x 89	88.11 x 88.11	89.89 x 89.89					9.06		12.50	14.60	
100 x 100	99 x 99	101 x 101				8.96		11.60	14.20	16.70	
125 x 125	123.75 x 123.75	126.25 x 126.25						14.80	18.20	21.40	30.60
150 x 150	148.5 x 148.5	151.5 x 151.5							22.10	26.20	37.70

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Elongation	18%	16%	12%

## AS1163: RECTANGULAR HOLLOW SECTIONS (RHS)

Nominal Size (mm)			Thickness (mm)								
			1.6	2.0	2.5	3.0	3.5	4.0	5.0	6.0	9.0
std	min	max	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m	kg/m
50 x 20	49.5 x 19.5	50.5 x 20.5	1.63	1.99	2.42	2.83					
50 x 25	49.5 x 24.5	50.5 x 25.5	1.75	2.15	2.62	3.07					
65 x 35	64.35 x 34.5	65.65 x 35.5		2.93	3.60	4.25		5.35			
75 x 25	74.25 x 24.5	75.75 x 25.5	2.38	2.93	3.60						
75 x 50	74.25 x 49.5	75.75 x 50.5		3.72	4.58	5.42		6.92	8.35	9.67	
100 x 50	99 x 49.5	101 x 50.5		4.50	5.56	6.60	7.53	8.49	10.30	12.00	
125 x 75	123.75 x 74.25	126.25 x 75.75				8.96		11.60	14.20		
150 x 50	148.5 x 49.5	151.5 x 50.5				8.96		11.60	14.20	16.70	
150 x 100	148.5 x 99	151.5 x 101						14.80	18.20	21.40	
200 x 100	198 x 99	202 x 101						17.90	22.10	26.20	37.70

### TOLERANCE

OD	≤ 50 mm: ± 0.5 mm
	> 50 mm: ± 1%
WT	±10%
Weight	- 4%, + Not limit