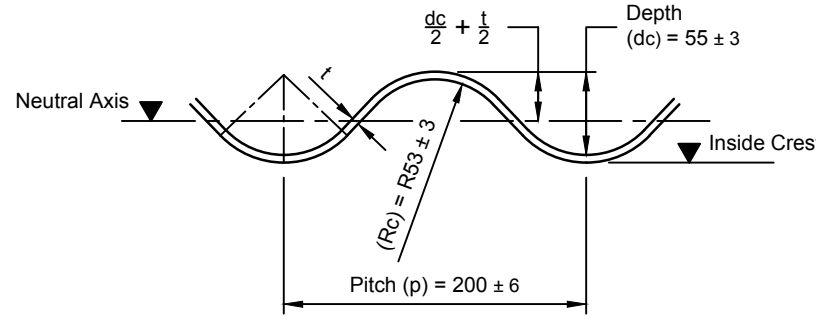


**SECTION PROPERTIES FOR B200**  
AS/NZS 2041.6:2010 Section 8 Table 8.3 [C]

Material Standard	Specified Wall Thickness mm	Structural Base Metal Wall Thickness (t) mm	Section Area (A) mm <sup>2</sup> /mm	Second Moment of Area (I) mm <sup>4</sup> /mm	Elastic Section Modulus (W <sub>el</sub> ) mm <sup>3</sup> /mm	Radius of Gyration (i) mm	Plastic Section Modulus (W <sub>pl</sub> ) mm <sup>3</sup> /mm
AS/NZS 1594 G250 and G300 Galvanized Steel to AS/NZS 4680	3.00	2.94	3.47	1324	45.71	19.54	60.99
	4.00	3.97	4.69	1797	60.94	19.57	82.71
	5.00	5.00	5.91	2273	75.77	19.60	104.58
	6.00	6.00	7.10	2739	89.79	19.64	125.94
	7.00	7.00	8.29	3208	103.49	19.67	147.46
	8.00	8.00	9.49	3681	116.86	19.70	169.15

**MATERIAL PROPERTIES - STEEL PLATE B200**  
AS/NZS 2041.6:2010 Section 5 Table 5.1.1 [A]

Material Standard	Metal Grade	Minimum Yield Strength (f <sub>y</sub> ) Mpa	Minimum Tensile Strength (f <sub>u</sub> ) Mpa	Minimum Elongation % over 200 mm
AS/NZS 1594	G250 Steel	250	350	17%
	G300 Steel	300	400	16%



**MULTI-PLATE PROFILE B200**  
B200 CORRUGATION: 200mm x 55mm  
SCALE 1:5

**Notes:**

1. 't' = The structural base metal thickness (BMT) without coatings.
2. Section properties are calculated from the nominal rolled shape of the sinusoidal profile with the nominal dimensions shown on this drawing.
3. For the purposes of calculating the minimum structural wall thickness, the thickness shown in the "Section Properties" tables may be interpolated to approximate intermediate thicknesses using the equations shown in the "Calculations" table on this drawing.
4. Material is hot-dip galvanized steel.

**Minimum Structural Wall Thickness Calculations for "B200"**

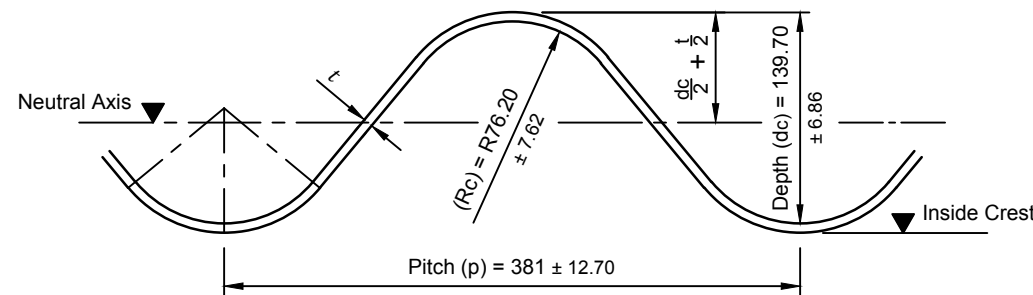
- a)  $A = 1.188t - 0.020$
- b)  $I = 464.352t - 41.793$
- c)  $W_{el} = 14.161t + 4.323$
- d)  $i = 0.032t + 19.442$
- e)  $W_{pl} = 21.312t - 1.690$

**SECTION PROPERTIES FOR B381**  
AS/NZS 2041.6:2010 Section 8 Table 8.3 [E]

Material Standard	Specified Wall Thickness mm	Structural Base Metal Wall Thickness (t) mm	Section Area (A) mm <sup>2</sup> /mm	Second Moment of Area (I) mm <sup>4</sup> /mm	Elastic Section Modulus (W <sub>el</sub> ) mm <sup>3</sup> /mm	Radius of Gyration (i) mm	Plastic Section Modulus (W <sub>pl</sub> ) mm <sup>3</sup> /mm
ASTM A761 Type 40 G275 Galvanized Steel with Zinc 1220g/m <sup>2</sup>	3.56	3.29	4.58	11206	146.71	49.45	202.59
	4.32	4.09	5.70	13956	181.83	49.48	252.21
	4.78	4.57	6.37	15610	202.78	49.50	282.03
	5.54	5.37	7.49	18372	237.49	49.54	331.79
	6.32	6.20	8.63	21214	272.86	49.57	382.97
	7.11	6.98	9.73	23939	306.44	49.60	431.99
7.87	7.75	10.79	26582	338.72	49.63	479.52	

**MATERIAL PROPERTIES - STEEL PLATE B381**  
AS/NZS 2041.6:2010 Section 7 Table 7.1.1 [A]

Material Standard	Metal Grade	Minimum Yield Strength (f <sub>y</sub> ) Mpa	Minimum Tensile Strength (f <sub>u</sub> ) Mpa	Minimum Elongation %
AS/NZS 1594	G300 Steel	300	400	16% over 200mm
	G400 Steel	380	460	14% over 200mm
ASTM A761	Type 40 G275 Steel	300	379.2	25% over 50mm



**REXSTEEL PROFILE B381**  
B381 CORRUGATION: 381mm x 140mm  
SCALE 1:5

**PRELIMINARY  
ISSUE  
ISSUED FOR COMMENT**

**Minimum Structural Wall Thickness Calculations for "B381"**

- a)  $A = 1.393t - 0.004$
- b)  $I = 3448.962t - 147.483$
- c)  $W_{el} = 43.056t + 5.724$
- d)  $i = 0.040t + 49.321$
- e)  $W_{pl} = 62.116t - 1.804$

Rev	Date	Revision Description	Drawn	Draft Chk	Des Eng	Lead Eng
0	10 MAR 17	INITIAL ISSUE	BF	BF		

A3 Scale:  
AS SHOWN  
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CIVIL PRODUCTS PTY LTD

Flynn Central Business Park  
9 Warman Street  
Neerabup  
Western Australia  
Tel: (08) 9404 5391,  
(07) 4789 6700  
or 1800 184 746  
www.roundel.com.au

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