



Tapered Flange Beams

Table 17 Tapered Flange Beams - Dimensions and Properties

Designation	Mass per metre	Depth of Section	Flange		Web Thickness	Radii		Depth Between Flanges	(b _f -t _w)		Gross Area of Cross Section	About x-axis					About y-axis				Torsion Constant	Warping Constant	Designation
			Width	Thickness		Root	Toe		d ₁	t _w		I _x	Z _x	S _x	r _x	I _y	Z _y	S _y	r _y				
			d	b _f		t _f	t _w		r ₁	r ₂		mm	mm	mm	mm	mm	mm	mm	mm	mm			
125 TFB	13.1	125	65.0	8.5	5.0	8.0	4.0	108	21.6	3.53	1670	10 ⁶ mm ⁴	10 ³ mm ³	10 ³ mm ³	mm	10 ⁶ mm ⁴	10 ³ mm ³	10 ³ mm ³	mm	10 ³ mm ⁴	10 ⁹ mm ⁶	125 TFB	
100 TFB	7.20	100	45.0	6.0	4.0	7.0	3.0	88	22.0	3.42	917	1.46	29.2	34.1	39.9	0.0795	3.53	6.00	9.31	11.6	0.176	100 TFB	

Table 18 Tapered Flange Beams - Properties for Assessing Section Capacity

Designation	Yield Stress		Form Factor	About x-axis		About y-axis		Yield Stress		Form Factor	About x-axis		About y-axis		Designation
	Flange	Web		Compactness		Compactness		Flange	Web		Compactness		Compactness		
	f _y	f _y		k _f	Z _{ex}	Z _{ey}	f _y	f _y	k _f		Z _{ex}	Z _{ey}			
	MPa	MPa		10 ³ mm ³	10 ³ mm ³		MPa	MPa		10 ³ mm ³	10 ³ mm ³				
	300PLUS® *														
125 TFB	320	320	1.00	C	80.3	C	15.6	360	360	1.00	C	80.3	C	15.6	125 TFB
100 TFB	320	320	1.00	C	34.1	C	5.30	360	360	1.00	C	34.1	C	5.30	100 TFB
	AS/NZS 3679.1-350														

* 300PLUS® replaced Grade 250 as the base grade for these sections in 1997.
300PLUS® hot rolled sections are produced to exceed the minimum requirements of AS/NZS 3679.1-300.

Notes

1. For 300PLUS® sections the tensile strength (f_t) is 430 MPa.
2. For Grade 350 sections the tensile strength (f_t) is 480 MPa.
3. C: Compact Section; N: Non-compact Section; S: Slender Section.