

Ferritic Grades

This group contains a minimum of 17% Chromium and 0.08 - 2.00% Carbon. The increase in chromium imparts increased resistance to corrosion at elevated temperatures, however the lack of mechanical properties due to the fact that it cannot be heat treated, limits its applications. Like martensitics they are magnetic and the welding of the group should be carried out with care.

Description and General Uses

445	NSS445M2 is a ferritic stainless steel having superior antirust and weld anticorrosion characteristics which has been developed as a material suited for roofing and facing applications and for applications where high resistance to hot water containing chloride is required. The main constituent of this steel is 22Cr-1.2Mo. By adding Nb, Ti and Al, the surface film of this steel is reinforced to improve its rust resistance. Further, the loss of Cr through oxidation at the time of welding is suppressed to prevent the weld from degrading in corrosion resistance. In addition to these features, its thermal expansion coefficient is nearly equal to that of common steel and smaller than that of austenitic stainless steel, so that this steel is also suitable for long-size roofing applications
430	T430 is a corrosion and heat resisting stainless steel with superior corrosion and heat resistance compared with T410. T430 is non hardenable and possesses only mild cold working properties due to high chromium content. It's weldability is excellent and it does not require subsequent annealing. Magnetic in all conditions
404GP	404GP is a general purpose stainless steel able to substitute for the workhorse grade, 304, in most applications. 404GP is easier to cut, fold, bend and weld than 304. This gives a better-looking job – cleaner edges and bends, flatter panels, neater construction. Plus cost advantages from lower tool maintenance and longer life. And with a lower density than 304, it gives 3.5% more area per kg. Grade 404GP can be used instead of grade 304 stainless steel in most applications. The corrosion resistance of grade 404GP is at least as good as grade 304, often better: it is not affected by stress corrosion cracking in hot water, and is not subject to sensitisation when welded.

To find the approximate weight for sheet and plate

Piece weight (kg) = Length (m) x width (m) x thickness (mm) x 8

Note: Formula should not be used for design purposes.

STAINLESS STEEL SHEET, PLATE AND COIL FINISHES

Common finishes held in stock are No.1, 2B, BA and No.4. Other finishes can be sourced from overseas suppliers.

Unpolished Finishes

- No.1** Hot Rolled, annealed and pickled. Generally used where smoothness of finish is not of particular importance.
- 2D** A dull cold rolled finish obtained from a final annealing and pickling, or a final light cold roll pass on dull rollers, after sheet has been cold rolled annealed and pickled. This finish is generally used in forming deep drawn articles which may be polished after fabrication.
- 2B** A semi-bright satin finish obtained from temper rolling after the sheet has been cold rolled, annealed and pickled. This is a general purpose finish that polishes better than 2D and is commonly used except in exceptionally difficult deep drawing applications.
- BA** A slightly reflective surface obtained from bright annealing after cold rolling used for quality deep drawing such as sinks, tubs etc.

Polished Finishes

Sheets can be produced with 1 or 2 sides polished. When polished on only one side, the other side may be rough ground in order to obtain the necessary flatness.

- No.3** A polished finish obtained by mechanical polishing on 2D or 2B finish with approx. 100 grit abrasive.
- No.4** A 'Brush' finish obtained from mechanical polishing with 120 - 150 grit. A general purpose finish widely used for kitchen and dairy equipment.
- No.6** A dull satin finish which has lower reflectivity than No.4 finish. It is used for architectural applications where high lustre is undesirable; it is also used effectively to contrast with brighter finishes.
- No.7** Buff polished to a high reflection ratio. Chiefly used for architectural and ornamental purposes.
- No.8** Mirror finished for high reflection. This finish is most widely used for press plates as well as small mirrors and reflectors.
- HL** Hairline finish obtained by mechanical polishing with 120-320 grit. Used mostly for finishing on flat bar for architectural purposes.

Coil

Cold rolled to ASTM A240/480



Width mm	304 2B	404 GP	445 M2
914	0.90mm - 3.00 mm		
1219	0.55mm - 3.00mm	0.55mm - 3.00mm	0.55mm - 3.00mm

Sheet - Ferritic



Size (mm)	Weight kg/m	404GP		445M2	
		2B	No.4	2B	2DRSS
0.55 X 1219 X 2438	13.08	0014944			0014324
0.70 X 1219 X 2438	16.64		0014691	0014480	
0.90 X 1219 X 2438	24.40	0014687		0014481	
1.20 X 1219 X 2438	28.53	0014688	0014693	0014482	
1.60 X 1219 X 2438	35.66	0014949	0014952	0014483	
2.00 X 1219 X 2438	47.55	0014950	0015463		
2.50 X 1219 X 2438	59.44			0015033	
3.00 X 1219 X 2438	71.33			0015034	

* please contact your Wakefield Representative for technical information on 404GP and 445M2

404GP can be used instead of grade 304 stainless steel in most applications. The corrosion resistance of grade 404GP is at least as good as grade 304, often better: it is not affected by stress corrosion cracking in hot water, and is not subject to sensitisation when welded.

445M2 is a ferritic stainless steel with excellent resistance to corrosion in the atmosphere and in waters. The steel is a development of grade 444, with extremely low carbon and addition of nitrogen, molybdenum and niobium for improved corrosion resistance and weldability.

Plate

ASTM A240/480



Grade	T304L			T316L
	Finish	Weight kg/sheet	No.1	No.1
Coating			2B	
Size in mm			Plain or PVC	
4 x 1500 x 3000	144.00		0002696	
5 x 1500 x 3000	180.00	0002691	0002693	
6 x 1500 x 3000	216.00	0002688	0002689	0002708
8 x 1500 x 3000	288.00	0002686		
10 x 1500 x 3000	360.00			0002706
10 x 2000 x 6000	960.00	0002685		
12 x 1500 x 3000	432.00	0002682		0002705
16 x 1500 x 3000	576.00	0002681		0002704
20 x 1500 x 3000	720.00	0002680		0002703
25 x 1500 x 3000	900.00	0002679		0002702