

Sales Offices	Phone	Fax
Adelaide	08 8345 1033	08 8345 1044
Brisbane	07 3722 0800	07 3277 6799
Melbourne	03 9409 8500	03 9408 3946
Sydney	02 9827 0790	02 9757 4486
Perth	08 9258 2600	08 9358 6206

**PRODUCT DATA
SHEET**
Grade 304 vs 304L
**Stainless
Steels**

Grade 304L is used at sections of about 5mm and thicker to avoid the possibility of corrosion sensitisation due to the formation of coarse chromium carbide particles at grain boundaries during extended times at elevated temperatures during welding. Grade 304 is usually considered adequate at lighter gauges.

There are several different national & international specifications for grade 304L. This note details some of these differences.

Table: Specifications for grades 304 and 304L, cold rolled, annealed condition

Country	Australia		USA		Japan		Europe	
Specification	AS1449:1994		ASTM A240		JIS G4305		En10088-2:1995	
Grade Name	304	304L	304	304L	304	304L	(304)	(304L)
			S30400	S30403			1.4301	1.4306
Chemistry, %								
Carbon	<0.08	<0.03	<0.08	<0.03	<0.08	<0.03	<0.07	<0.03
Nitrogen	–	<0.10	<0.10	<0.10	–	–	<0.11	<0.11
Chromium	18.00 – 20.00	18.00 – 20.00	18.0 – 20.0	18.0 – 20.0	18.0 – 20.0	18.0 – 20.0	17.00 – 19.50	18.00 – 20.00
Nickel	8.00 – 10.50	8.00 – 12.00	8.0 – 10.5	8.0 – 12.0	8.0 – 10.5	9.0 – 13.0	8.00 – 10.50	10.00 – 12.00
Properties, minimum								
0.2% Proof Stress, MPa	205	170	205	170	205	175	230	220
Tensile Strength, MPa	520	485	515	485	520	480	540 – 750	520 – 670
Elongation, %	40	40	40.0	40.0	40	40	45	45