

## Stainless Steel - EN Standards for Stainless Steel C.R. Sheet

Last Updated 18 July 2019

For cold rolled stainless steel the old BS1449 standard has been replaced by two EN Standards:

**EN10088-2** Replaces BS1449-Part 2: 1983

**EN10059** Covers Heat Resisting Grades

**EN10259 & Now ISO 9445:** Tolerances for COLD rolled material

### MATERIAL CERTIFICATION

Where multi-certification is required, a combination of EN10088-2, EN10029 or 10051 will appear together with the appropriate ASTM Standards.

### THICKNESS TOLERANCES - EN10259

Thickness (mm)	Tols (+/-mm) for given width in mm		
	1000	1250	1500
under 0.30	0.03	-	-
0.30 to 0.49	0.04	0.04	-
0.50 to 0.59	0.05	0.05	-
0.6 to 0.79	0.05	0.05	-
0.8 to 0.99	0.06	0.06	0.06
1.0 to 1.19	0.07	0.07	0.07
1.2 to 1.49	0.08	0.08	0.08
1.5 to 1.99	0.09	0.09	0.10
2.0 to 2.49	0.10	0.10	0.11
2.5 to 2.99	0.12	0.12	0.12
3.0 to 3.99	0.14	0.14	0.14

### FLATNESS TOLERANCES

Nominal Length (L) (mm)	Normal Tolerance (mm)
Up to 3000	10
Over 3000	12

### LENGTH TOLERANCES

Nominal Length (L) (mm)	Normal Tolerance (mm)
Up to 2000	+5 / -0
Over 2000	+0.0025 x L / -0

### WIDTH TOLERANCES

Thickness mm	All Plus Tols (mm) for Given Width in (mm)
	1000 & 1500
Under 1.5	+ 2.0
1.5 to 2.49	+ 2.5
2.5 to 3.49	+ 3.0
3.5 and Over	+ 4.0

**DISCLAIMER** This Data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon. Please note that the 'Datasheet Update' date shown above is no guarantee of accuracy or whether the datasheet is up to date. The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources. Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards. As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied. Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.



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### FINISHES ACCORDING TO BS EN 10088-2 /10028-7

BS EN Finish	Old BS Finish	Description
		Hot rolled
1C	0	Hot rolled, heat treated, not descaled
1E	1	Hot rolled, heat treated, mechanically descaled
1D	1	Hot Rolled, heat treated, pickled
1U	-	Hot rolled, not heat treated, not descaled
		Cold rolled
2C	-	Cold rolled, heat treated, not descaled
2E	-	Cold rolled, heat treated, mechanically descaled
2D	2D	Cold rolled, heat treated, pickled
2B	2B	Cold rolled, heat treated, pickled, skin passed
2R	2A / (BA)	Cold rolled bright annealed
2Q	-	Cold rolled, hardened & tempered, scale free

### FINISHES ACCORDING TO BS EN 10088-2 /10028-7

BS EN Finish	Old BS Finish	Special Finishes - Description	Typical Grit	Typical Ra
1G or 2G	-	Ground grit	120	2.5 to 2.0
1J or 2J	3B	Brushed - unidirectional	180	1.2 to 1.0
1J or 2J	4	Dull Polished - unidirectional	240	0.6
1K or 2K	5	Satin Polished - unidirectional	320	0.5 Max
1P or 2P	7	Bright polished - non-directional with a high degree of image clarity	600	0.1
1P or 2P	8	Mirror finish - non-directional with a very high degree of image clarity	800	0.05
1M or 2M	-	Patterned	-	-
2L	-	Coloured	-	-
2W	-	Corrugated	-	-
1S or 2S	-	Surface coated (metallic coatings such as tin, lead or aluminium)	-	-

**NOTE:** Special finishes indicate hot rolled (1) and cold rolled (2) sheets, e.g.: Ground polished hot rolled sheets + 1G / Ground polished cold rolled sheets = 2G

For more information on stainless steel finishes please refer to the Cashmores technical datasheet on this subject.

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