

**Mercatech uses the Charmilles scale of roughness.**

**Here is how it relates to the standards:**

*Check with surface finish gage when in doubt.*

The roughness criteria are Ra (Europe) CLA (UK) AA (USA)

VDI 3400	Ra CLA AA		Rt max. Approx. 8*Ra	Class	VDI 3400	Ra CLA AA		Rt max. Approx. 8*Ra	Class
CH	Micro	Micro		ISO 1302	CH	Micro	Micro		ISO 1302
0	0.1	4	0.8	N3	23	1.4	56	11.2	N7
1	0.11	4.4	0.88		24	1.62	63	12.96	
2	0.12	4.8	0.96		25	1.8	72	14.4	
3	0.14	5.6	1.12		26	2	80	16	
4	0.16	6.4	1.28		27	2.2	88	17.6	
5	0.18	7.2	1.44	N4	28	2.5	100	20	N8
6	0.2	8	1.6		29	2.8	112	22.4	
7	0.22	8.8	1.76		30	3.2	125	25.6	
8	0.25	10	2		31	3.5	140	28	
9	0.28	11.2	2.24		32	4	160	32	
10	0.32	12.8	2.56	N5	33	4.5	180	36	N9
11	0.35	14	2.8		34	5	200	40	
12	0.4	16	3.2		35	5.6	224	44.8	
13	0.45	18	3.6		36	6.3	250	50.4	
14	0.5	20	4		37	7	280	56	
15	0.56	22.4	4.48	N6	38	8	320	64	N10
16	0.63	25.2	5.04		39	9	360	72	
17	0.7	28	5.6		40	10	400	80	
18	0.8	32	6.4		41	11.2	448	89.6	
19	0.9	36	7.2		42	12.6	500	100.8	
20	1	40	8		43	14	560	112	
21	1.12	44.8	8.96		44	16	640	128	
22	1.26	50.4	10.08		45	18	760	144	
No. CH = 20 log (10 Ra) (micro mm)									

Mercatech as a general rule allows a tolerance of +/- 2 CH for surface finish measurement.

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