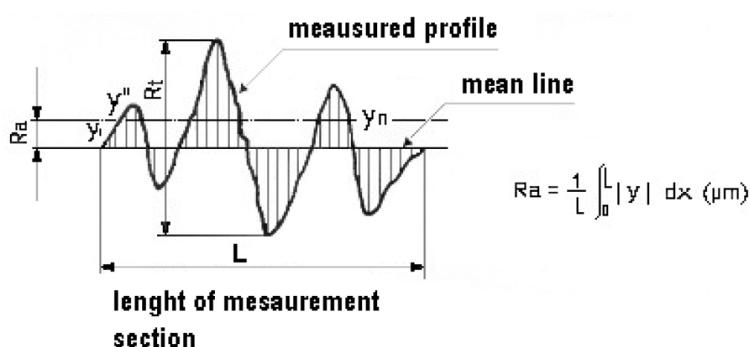


ROUGHNESS CONVERSION TABLE

Ra μm ISO 468 e 4287	AA μinch USA ASA B.46.1	Centre Line Average CLA μinch GB BS 1134	Rt μm Germany	Rz μm JIS mean of 10 points	Ry μm max height	UEFCO	ISO 1302	MCC
0.006	0.25						N01	
0.012	0.5			0.05	0.05		N0	
0.025	1		0.25	0.1	0.1		N1	
0.05	2		0.5	0.2	0.2		N2	
0.1	4	4	0.8	0.4	0.4		N3	f5
0.2	8	8	1.6	0.8	0.8	fP	N4	
0.4	16	16	2.5	1.6	1.6	fP	N5	f4
0.8	32	32	4	3.2	3.2	fG	N6	f3
1.6	63	63	8	6.3	6.3	fF	N7	f2
3.2	125	125	16	12.5	12.5	fO	N8	f1
6.3	250	250	25	25	25	fO	N9	f
12.5	500	500	50	50	50	fR	N10	
25	1000	1000	100	100	100	fT	N11	
50	2000			200	200		N12	
100	4000			400	400		N13	
200	8000						N14	

SYMBOLS AND LEVEL OF FINISHING

Ra μm	AA- CLA μinch	Conventional symbols	Surface description
0.025	1	▼▼▼▼	Superfinishing
0.05	2	▼▼▼▼	Burnishing diamond paste
0.1	4	▼▼▼▼	Lapped, high level of finish, perfectly smooth
0.2	8	▼▼▼▼	Lapped for seal joints
0.4	16	▼▼▼	Ground, electric spark machining
0.8	32	▼▼▼	Extra fine for machine tools, finish to the papers
1.6	63	▼▼	Very smooth for machine tools
3.2	125	▼▼	Smooth for machine tools
6.3	250	▼	Medium for machine tools
12.5	500	▼	Coarse for machine tools
25	1000	~	Raw material
50	2000	~	Raw material



- Roughness is the series of micro-geometrical errors present on a surface prepared with any machining process.
- Roughness is measured on the surface in a transversal direction to the main grooves.
- The mean arithmetical value " Ra " in μm is assumed for the roughness measurement.
- Rt = maximum value of roughness or height from the lowest point to highest point
- Rz = average roughness in 10 points