

Surface Finish Values For Electroplated (Single Layer) Diamond and CBN Tooling

Tech Sheet # 11

SURFACE FINISH

Use the table as a starting point in selecting the proper mesh size for your diamond or CBN electroplated plated wheel. Other variables such as type of material being ground, material removal rate, machine condition, infeed and the use of coolant will all influence eventual part finish.

Diamond or CBN	RMS Finish	Ra Finish
Mesh Size	In Micro Inch	In Microns
100/120	64 - 90	1.5 - 2.09
140/170	32 - 48	.73 - 1.09
170/200	24 - 32	.5573
200/230	20 - 24	.4555
230/270	14 - 16	.3236
325/400	13 - 14	.2932
400/500	12 - 13	.2729

RMS—is defined as the "root mean square "of the profile height deviations from the mean line of the surface. Lower values indicate a smoother finish. The above table expresses the RMS values in micro inches.

RA is the arithmetic average of the mean deviation of the surface valleys and peaks. Again, the lower the value, the smoother the finish. The RA values listed here are in microns.