Printable sharpening chart: angles and stone grits

Bevel-up plane on a 12° bed: bevel → cutting angle

Bevel	Cuts at
25°	37°
33°	45°
38°	50°

Japanese (JIS) waterstone grits

Grit	µm
#400	37.5
#600	27.5
#800	19
#1000	15
#1200	13
#1500	10
#2000	8
#3000	5
#4000	3
#8000	1.52

DMT diamond plates

Plate	Color	µm	Mesh
Extra-extra coarse	Silver	120	120
Extra coarse	Black	60	220
Coarse	Blue	45	325
Fine	Red	25	600
Extra fine	Green	9	1200
Extra-extra fine	Tan	3	8000

New blades are ground 25° (Lie-Nielsen, Veritas). JIS microns: median of Shapton, Mirka and Fine Woodworking where three print a grit, else the mean of two. DMT: its own grit chart. woodworkingmath.com/tools/sharpening-angles/ Version 8 Nov 2026. Free to share under CC BY 4.0: credit Woodworking Math (woodworkingmath.com).