

# MOLD FINISH CROSS REFERENCE CHART

TYPES OF FINISHES	SPI SURFACE ROUGHNESS Designation		ROUGHNESS Ra, $\mu\text{m}$	ROUGHNESS Rmax, $\mu\text{m}$	ISO 1302 Roughness Grade
DIAMOND	3 $\mu\text{m}$ Diamond Paste	A1	0.025	0.1-0.3	N 1
	6 $\mu\text{m}$ Diamond Paste	A2	0.05	0.3-0.7	N 2
	15 $\mu\text{m}$ Diamond Paste	A3	0.1	0.75-1.25	N 3
PAPER	600 Grit	B1	0.2	1.5-2.5	N 4
	400 Grit	B2	0.4	2-6	N 5
	320 Grit	B3	0.8	6-10	N 6
STONE	600 Stone	C1	1.6	10-20	N 7
	400 Stone	C2	3.2	20-40	N 8
	320 Stone	C3	6.3	~60	N 9
DRY BLASTED	#11 Glass Bead	D1	12.5	~125	N 10
	240 Aluminum Oxide Blast	D2	25	~250	N 11
	#24 Aluminum Oxide Blast	D3	50	~500	N 12

SPI Finish A1 – S136 Hardness at 54HRC  
- Super High Glossy in China

SPI Finish A2 – 718HH or NAK80 Hardness at 40HRC  
- High Glossy” in China

**SPI Finish A3 – 718H or S136 Hardness 32HRC**  
-Normal Glossy in China)

Table above comparison between requested surface roughness measured by mechanical profiles and international standards

$R_a$  = Roughness average, measured in either micro-inches or micro-meters

$R_{rms}$  = Roughness root mean square, measured in either micro-inches or micro-meters.

$R_{rms}$  = approximately 1.1 times  $R_a$ .

$R_{max}$  = Roughness maximum, measured in either micro-inches or micro-meters.

$R_{max}$  = 4 times  $R_a$ .