

Stone, Belt, Paper and Compound Grit Comparison - Page 1

Description	Belts and wheels				Waterstones			Average grit size in microns	Trizact
	ANSI/CAMI (USA)	FEPA (Europe)	JIS Old	JIS New	Shapton Hones	Norton Stones	DMT Diamond Plates		
	8							2210	
	10							1854	
		P12						1764	
	12							1600	
		P16						1322	
	16							1092	
		P20						984	
	20							940	
	24							686	
		P24						740	
		P30						622	
	30							559	
		P36						524	
	36							483	
		P40						412	
	46							356	
								351	A500
		P50						326	
	54							305	
								268	A400
		P60						260	
	60							254	
	70							203	
		P80						195	A300
	80							165	
		P100						156	
	90							145	
		P120				Coarse Crystolon(^)		127	A160
					Shapton Pro 120 Grit			122.5	
	100							122	
							Extra-Extra Coarse	120	
100 micron belt	120							102	
								100	
		P150				Coarse India(#)		97	A130
80 Micron belt	150							89	
								80	
		P180				Medium Crystolon(^)		78	A100
3M 74 micron diamond stone	180							76	
								74	
					Shapton Pro & Glass 220 Grit			66.82	
		P220				220 Grit Water Stone		65	A90
	220							63	
					Shapton 240 Grit			61.25	
60 Micron belt			240				Extra Coarse	60	
		P240						58	
				240				57	
						Medium India(#)		53.5	
		F230, P280						53	
			280		Shapton 280 Grit			52.5	
	240							50	
				280				48	
		P320	320					46	
					Shapton Pro 320 Grit			45.94	
		F240				Fine Crystolon(^)	Coarse	45	
					Shapton 360 Grit			40.83	
3M 40 micron diamond stone & belt		P360	360	320				40	
	280							39	
					Shapton 400 Grit			36.75	
Medium diamond						360 Grit Water Stone		36	
35 Micron belt		P400		360		Fine India(#)		35	A45
			400					34	
	320							31	
30 Micron belt		P500		400				30	
					Shapton Glass 500 Grit			29.4	
Washita		F320						29	
			500					28	
		P600						25.8	A30
				500			Fine	25	
					Shapton 600 Grit			24.5	
				600				24	
		F360						23	
Soft Arkansas(?), Extra Fine India(#), 22 Micron belt	400	P800				600 Grit Water Stone		22	
			700		Shapton 700 Grit			21	
20 Micron belt, 3M 20 micron stone				600				20	
	500							19	
					Shapton 800 Grit			18.38	
18 Micron belt		P1000	800					18	
		F400		700				17	
	600					800 Grit Water Stone		16	
			1,000					15.5	

Stone, Belt, Paper and Compound Grit Comparison - Page 2

Description	Belts and wheels				Waterstones			Average grit size in microns	Trizact
	ANSI/CAMI (USA)	FEPA (Europe)	JIS Old	JIS New	Shapton Hones	Norton Stones	DMT Diamond Plates		
15 Micron belt, 15 micron SiC paper		P1200						15	A16
					Shapton Pro & Glass 1,000 Grit			14.7	
Medium Ceramic	700			800		1,000 Grit Water Stone		14	
			1,200					13	
		P1500						12.6	A10
					Shapton 1,200 Grit			12.25	
12 micron belt	800							12	
				1,000				11.5	
Hard White Arkansas(?)						1,200 Grit Water Stone		11	
Queer Creek Blue Ohio Sandstone								10.8	
			1,500					10.5	
		P2000						10.3	
3M 10 micron diamond stone								10	
					Shapton Pro 1,500 Grit			9.8	
			1,200					9.5	
		F600				1,500 Grit Water Stone		9.2	
9 micron belt	900						Extra-Fine	9	
			2,000					8.5	
		P2500						8.4	
				1,500				8	
						2,000 Grit Water Stone		7.5	
					Shapton Pro & Glass 2,000 Grit			7.35	
	1,000		2,500				Ceramic	7	
				2,000				6.7	
		F800						6.5	
Hard Black & Translucent Arkansas(?), 6 Micron belt						4,000 Grit Water Stone		6	
					Shapton 2,500 Grit			5.88	
				3,000				5.7	
			2,500					5.5	
5 micron SiC paper	1,200	F1000						5	
					Shapton 3,000 Grit			4.9	
Belgian Blue Stone(Approximate)				3,000				4	
					Shapton Glass 4,000 Grit			3.68	
Green Rouge, 3 Micron belt, Tormek compd(-)	1,500	F1200		4,000		8,000 Grit Water Stone	Extra-Extra-Fine	3	A3
					Shapton Pro 5,000 Grit			2.94	
					Shapton 6,000 Grit			2.45	
		F1500		6,000				2	
					Shapton Pro & Glass 8,000 Grit			1.84	
					Shapton 10,000 Grit			1.47	
Yellow Coticle Stone(Approximate)		F2000		8,000	Shapton Pro 12,000 Grit			1.2	
1 Micron belt, Linde C compound(\$)	2,000							1	
					Shapton Pro 15,000 Grit			0.98	
					Shapton Glass 16,000 Grit			0.92	
					Shapton 20,000 Grit			0.74	
Chromium oxide polishing compound, 0.5 micron Chromium oxide paper						15,000 Grit Water Stone		0.5	
					Shapton Pro & Glass 30,000 Grit			0.49	
					Shapton 60,000 Grit			0.25	
					Shapton 100,000 Grit			0.15	
					Shapton 200,000 Grit			0.07	

It is impossible to make exact comparisons between all the different abrasives because different standards are used for average, minimum and maximum size, the percentage allowed outside those limits, and the distribution of sizes within those limits. Sizes of 240 grit and larger (macrogrits) are determined by sieving, while sizes of 240 grit and smaller (microgrits) are determined by sedimentation.

ALL Natural stones like the Arkansas, Coticle, Belgian Blue, and Ohio Blue are **Approximate** ratings that are **always different from stone to stone**, and are for a general reference only

~ Tormek compound contains a variety of grains of various size, the smallest down to 0.7 micron. The average effective size is 3 micron.

^ Crystolon is Norton Abrasives tm for Silicon Carbide stones

India is Norton Abrasives tm for Aluminum Oxide stones

\$ Raybrite and Linde compounds are aluminum oxide powders

? Grit ratings taken from Norton Abrasives grit table

Old JIS standard is measured via sedimentation tube

New JIS standard measured via electrical resistance

DMT sizes from their web site

Shapton sizes are from their web site

ANSI Numbers from Washington Mills ANSI GRIT SIZE CONVERSION CHART in average Microns

European "P" sizes are for coated abrasives; "F" sizes are for bonded abrasives.

FEPA Numbers from LECO Corporation grit comparison Sheet 15

Some kanji:

砥石 = Toishi whetstone

天然砥石 = Natural Whetstone

嵐山 = Arashiyama / Storm Mountain brand

ベスタ = Besuta / Bester brand

キング = King brand

北山 = Kitayama / North Mountain brand

ナニワ = Naniwa Kenma brand (エビ = ebi / shrimp trademark)

シャプトン = Shaputon / Shapton brand (刃の黒幕 = kuromaku / professional grade)

スエヒロ = Suehiro brand

六十型 = Type 60

京都特産 = Kyoto special product

最高級品 = High grade product