

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

Description	Belts and wheels		Waterstones				Trizact	Average grit size in microns	
	ANSI/CAMI (USA)	FEPA (Europe)	JIS	JIS	Shapton Hones	Norton Stones			DMT Diamond Plates
			Old	New					
	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	
							A500	351	
		P50						326	
	54							305	
		P60					A400	268	
	60							260	
	70							254	
		P80					A300	203	
	80							195	
		P100						165	
	90							156	
		P120				Coarse Crystolon(^)	A160	145	
					Shapton Pro 120 Grit			127	
	100							122.5	
						Extra-Extra Coarse		122	
	120							102	
100 micron belt								100	
		P150				Coarse India(#)	A130	97	
	150							89	
80 Micron belt								80	
		P180	180			Medium Crystolon(^)	A100	78	
	180							76	
3M 74 micron diamond stone								74	
					Shapton Pro & Glass 220 Grit			66.82	
		P220	220			220 Grit Water Stone	A90	65	
	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		F280				360 Grit Water Stone		36	
35 Micron belt		P400		360		Fine India(#)	A45	35	
			400					34	
	320							31	
30 Micron belt		P500		400				30	
					Shapton Glass 500 Grit			29.4	
Washita		F320						29	
			500					28	
		P600					A30	25.8	
				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	

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	ANSI/CAMI (USA)	FEPA (Europe)	JIS	JIS	Shapton Hones	Norton Stones	DMT Diamond Plates		
			Old	New					
15 Micron belt, 15 micron SiC paper		P1200						A16	15
					Shapton Pro & Glass 1,000 Grit				14.7
Medium Ceramic	700			800		1,000 Grit Water Stone			14
				1,200					13
		P1500						A10	12.6
					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
					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(\$)	2,000								1
					Shapton Pro 15,000 Grit				0.98
					Shapton Glass 16,000 Grit				0.92
					Shapton 20,000 Grit				0.74
Linde B(\$)						15,000 Grit Water Stone			0.5
					Shapton Pro & Glass 30,000 Grit				0.49
Linde A(\$)									0.3
					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

DMT sizes from their web site

All Norton sizes taken from Norton Abrasives grit table

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 = Shapton / Shapton brand (刃の黒幕 = kuromaku / professional grade)

スエヒロ = Suehiro brand

酔拳 = Suishin Brand "Drunken Heart"

六十型 = Type 60

京都特産 = Kyoto special product

最高級品 = High grade product

New JIS standard measured via electrical resistance

Shapton sizes are from their web site