Metabrasive Ltd

Premium High Performance Iron Grit and Shot Media

	Iron Grit	Iron Shot
Shape when new	Angular	Round
Typical average hardness: Tukon durometer Knoop diamond point 1000g load	≥ 57 HRC	≥ 57 HRC
Vickers pyramid 10kg 5kg 2.5kg 1.0kg according to particle size	≥ 650 HV	≥ 650 HV
Mean hardness deviation*	± 3 HRC or ± 40 HV	± 3 HRC or ± 50 HV
Microstructure	Chilled iron microstructure a white iron eutectic structure of cementite and martensite	
Minimum density measured by alcohol displacement	≥ 7.0 g/cm^3	≥ 7.0 g/cm^3
* On 10 measurements taken halfway across the grain radius. Arithmetic mean of absolute values of deviation ±3 HRC		

Iron Grit Particle Size Specification

Product Size (mm)	% : min & max cumulative percentages allowed on corresponding sieves															
G80 2.0 - 2.8	0%		80% min	90% min												
G66 1.7 - 2.4		0%		80% min	90% min											
G55 1.4 - 2.0			0%		80% min	90% min										
G47 1.2 - 1.7				0%		75% min	85% min									
G39 1.0 - 1.4					0%		75% min		85% min							
G34 0.85 - 1.2						0%		75 min		85% min						
G24 0.6 - 1.0							0%			70% min		85% min				
G17 0.42 - 0.85								0%				70% min		80% min		
G12 0.3 - 0.71									0%					65% min		85% min
G07 0.18 - 0.42												0%			65% min	75% min
G05 0.12 - 0.3														0%		60% min
G02 <0.13																All Pass
BS Sieve No.	6	7	8	10	12	14	16	18	22	25	30	36	44	52	85	120
SAE Sieve No.	7	8	10	12	14	16	18	20	25	30	35	40	45	50	80	120
Aperture	2.80	2.36	2.00	1.70	1.40	1.18	1.00	0.85	0.71	0.60	0.50	0.425	0.355	0.30	0.18	0.125

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Minimum density measured by alcohol displacement	≥ 7.0 g/cm^3	≥ 7.0 g/cm^3
* On 10 measurements taken halfway across the grain radius. Arithmetic mean of absolute values of deviation ±3 HRC		

Iron Shot Particle Size Specification

Product Size (mm)	% : min & max cumulative percentages allowed on corresponding sieves																	
S1320 3.3 - 4.8			90 % min		100 % min													
S1110 2.8 - 4.0				90 % min		100 % min												
S950 2.4 - 3.3					90 % min		100 % min											
S800 2.0 - 2.8						85 % min		95 % min										
S660 1.7 - 2.4							85 % min		95 % min									
S550 1.4 - 2.0								85 % min		95 % min								
S470 1.2 - 1.7									80 % min		95 % min							
S390 1.0 - 1.4										80 % min		95 % min						
S340 0.85 - 1.2											80 % min		95 % min					
S240 0.6 - 0.85													75 % min		95 % min			
S170 0.42 - 0.71															75 % min		95 % min	
BS Sieve No.	3	4	5	6	7	8	10	12	14	16	18	22	25	30	36	44	52	85
SAE Sieve No.				7	8	10	12	14	16	18	20	25	30	35	40	45	50	80
Aperture	4.75	4.00	3.35	2.80	2.40	2.00	1.70	1.40	1.18	1.00	0.85	0.71	0.60	0.500	0.425	0.35	0.30	0.180