



Technical Data Sheet

AMASTEEL High Carbon Cast Steel Grit

Chemical Composition

SAE J-1993

Carbon80 - 1.2%
 Manganese60 – 1.2%
 Silicon40% min

Sulfur05% max
 Phosphorus05% max

Sizing

SAE J-444

U.S. Sieve Size	Sieve Opening		SAE J-444 Shot Screening Specifications									
	(in)	(mm)	G10	G12	G14	G16	G18	G25	G40	G50	G80	G120
7	0.1110	2.80	All Pass									
8	0.0937	2.36		All Pass								
10	0.0787	2.00	80% min		All Pass							
12	0.0661	1.70	90% min	80% min		All Pass						
14	0.0555	1.40		90% min	80% min		All Pass					
16	0.0469	1.18			90% min	75% min		All Pass				
18	0.0394	1.00				85% min	75% min		All Pass			
20	0.0331	0.850										
25	0.0278	0.710					85% min	70% min		All Pass		
30	0.0234	0.600										
35	0.0197	0.500										
40	0.0165	0.425						80% min	70% min		All Pass	
45	0.0139	0.355										
50	0.0117	0.300							80% min	65% min		All Pass
80	0.0070	0.180								75% min	65% min	
120	0.0049	0.125									75% min	60% min
140	0.0041	0.106										
170	0.0035	0.090										
200	0.0029	0.075										70% min

Product Specifications

SAE J-1993

Microstructure: Tempered Martensite
 Shape: Angular
 Density: 7.3 gm / cc

Hardness: S Hardness: 40 – 51 HRC
 M Hardness: 47 – 56 HRC
 L Hardness: 54 – 61 HRC
 H Hardness: 60 HRC minimum

General Appearance: No more than 40% of the grit particles shall have objectionable characteristics
 Particle Shape: No more than 5% round or half-round particles for hard grits. No more than 10% round or half-round particles for soft grits.
 Shrinkage: No more than 10% of the particles shall contain shrinkage: defined as an internal cavity with an irregular dendritic surface whose area is greater than 40% of the particle area
 Cracks: No more than 40% of the particles shall contain major cracks: defined as a linear discontinuity whose length is greater than 3 times its width and is radial in direction