



Technical Data Sheet

AMASTEEL High Carbon Cast Steel Shot

Chemical Composition

SAE J-827

Carbon80 - 1.2%
 Manganese
 S-70 - S-11035 - 1.2%
 S-17050 - 1.2%
 S-230 & larger60 - 1.2%

Silicon4% min
 Sulfur05% max
 Phosphorus05% max

Sizing

SAE J-444

U.S. Sieve Size	Sieve Opening		SAE J-444 Shot Screening Specifications										
	(in)	(mm)	S780	S660	S550	S460	S390	S330	S280	S230	S170	S110	S70
7	0.1110	2.80	All Pass										
8	0.0937	2.36		All Pass									
10	0.0787	2.00	85% min		All Pass	All Pass							
12	0.0661	1.70	97% min	85% min		5% max	All Pass						
14	0.0555	1.40		97% min	85% min		5% max	All Pass					
16	0.0469	1.18			97% min	85% min		5% max	All Pass				
18	0.0394	1.00				96% min	85% min		5% max	All Pass			
20	0.0331	0.850					96% min	85% min		10% max	All Pass		
25	0.0278	0.710						96% min	85% min		10% max		
30	0.0234	0.600							96% min	85% min		All Pass	
35	0.0197	0.500								97% min		10% max	
40	0.0165	0.425									85% min		All Pass
45	0.0139	0.355									97% min		10% max
50	0.0117	0.300										80% min	
80	0.0070	0.180										90% min	80% min
120	0.0049	0.125											90% min

Product Specifications

SAE J-827

Microstructure: Tempered Martensite
 Shape: Round
 Density: 7 gm / cc

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

General Appearance: No more than 20% of the particles shall have objectionable characteristics
 Particle Shape: No more than 5% of the particles shall be elongated. An elongated particle is one whose length is in excess of twice the maximum particle width.
 Voids: No more than 10% of the particles contain objectionable voids: defined as an internal hole that is larger than 10% of the cross section area of the particle
 Shrinkage: No more than 10% of the particles contain objectionable shrinkage: defined as an internal cavity with an irregular dendritic surface whose area is larger than 40% of the particle area
 Cracks: No more than 15% of the particles shall contain objectionable cracks: defined as a linear discontinuity whose length is greater than 3 times its width and radial in orientation