



Abrasive - Carbon Steel Shot

The **steel shot abrasive** is produced with the best steel, to ensure high efficiency of the product. It is thermally treated in a special process, that achieves a tempered martensite structure, ensuring resistance to fatigue and operational effectiveness. The steel shot is manufactured in different granulometries and hardness, making possible an excellent result in different applications, such as:

- Smelting sand removal.
- Pickling of forged pieces, flat and round laminates, metallic structures, etc.
- Shot Peening
- Cleaning in general.
- Preparation of surfaces for painting, metalizing, etc.
- Shotblasting of lamination cylinders.

Chemical composition

Carbon (C)	0.80 % - 1.20 %
Manganese (Mn)	
S-110	0.35 % - 1.20 %
S-170	0.50 % - 1.20 %
≥ S-230	0.60 % - 1.20 %
Silicon (Si)	> 0.40 %
Phosphorous (P)	≤ 0.05 %
Sulphurous (S)	≤ 0.05 %



Manufacturing norms

Manufactured under the following norms SAE J444, SAE J-827 y SAE J-1993

Structure

Martensite structure totally fine and homogenous

Note: A well controlled tempering operation confers to the shot a metallurgical structure in which the iron and carbon atoms are grouped in the finest and most regular possible way. This structure allows homogeneity of hardness and resistance in the group of shot particles. Without this structure the shot would not have the necessary resistance for its applications.

Granulometries

		SIEVES															
		7	8	10	12	14	16	18	20	25	30	35	40	45	60	80	120
		2.8	2.3	2	1.7	1.4	1.18	1	0.85	0.71	0.6	0.5	0.42	0.39	0.3	0.18	0.13
GRIT CODES	S780	All through		85% min	97% min.												
	S660		All through		85% min	97% min.											
	S550			All through		85% min	97% min.										
	S460			All through	5% max		85% min	96% min.									
	S390				All through	5% max		85% min	96% min.								
	S330					All through	5% max		85% min	96% min.							
	S280						All through	5% max		85% min	96% min.						
	S230							All through	10% max		85% min	97% min.					
	S170								All through	10% max		85% min	97% min.				
	S110										All through	10% max		80% min	90% min.		
	S70												All through	10% max		80% min	90% min.

According to international norms SAE J-444

Hardness

The hardness of the shot influences considerably the speed of cleaning and its lifetime. If the shot is too hard, it performs a good cleaning but it becomes too fragile and as it impacts, it breaks easily. On the other hand, if the shot has a low hardness, it would not clean properly and the shotblasting time would increase, making the process too onerous.

The standard hardness level of shot is the following:

Denomination	Hardness
H	392-528 Hv (40-51 Hrc)
P	430-550 Hv (43-52 Hrc)



CYM MATERIALES S.A.

Industrial Solutions

Administration and factory

Brig. Estanislao Lopez Nº 6
[S2108AIB] Soldini - Santa Fé - Argentina
Tel: [54-341] 490 1100 | Fax: [54-341] 490 1366
E-mail: info@cym.com.ar
www.cym.com.ar

Metalcym Brasil

Rua Mário Junqueira da Silva nº 684 - Jd Eulina
Campinas - SP - Brasil - CEP.13063-000
Tel: [55-19] 3242-9777 - Fax: [55-19] 3243-7236
E-mail: metalcym@metalcym.com.br
www.metalcym.com.br

