



ERVIN AMASTEEL

Why is Ervin's quality superior?

By the very nature of its proprietary process, Ervin manufactures the highest quality steel abrasive.

Ervin's water quenching technology allows the steepest possible temperature gradient between the furnace and the cooling process. The steel particles fall into flowing water, the temperature and chemical content of which are closely monitored. The temperature of the steel particles falls sharply. This results in a sound metallurgical structure, where the iron and carbon atoms arrange themselves in the optimum, most regular way.

The final metallurgical structure, **fine, homogeneous tempered martensite**, gives each particle the highest resilience possible, extending its life in blasting situations, while still transmitting high energy. The quenching processes of other manufacturers, using air blown from a ventilator, are not so effective. You may feel this difference if you jump in the water to cool down rather than staying out in the breeze...

Ervin has a grade-specific heat treatment process. This means that **each tempering furnace treats particles of the same size**; this enables a precise and deep heat treatment to take place, throughout each individual particle, giving it a hardness that is both consistent and optimum. Conversely, most other manufacturers heat treat particles of various sizes in the same furnace at the same time, which creates heterogeneous structures and hardnesses. Ervin's technology narrows the hardness range and makes it more consistent.

Why is Ervin the world standard for quality?

Ervin became N°1 in North America by supplying an uncompromising, superior quality. This key success factor was initially an uphill battle against lower-priced competition but, progressively, customers realised that **the combination of longer life and higher transmitted energy was cost-effective, time-saving and energy-friendly.**

Ever since, in all plants and for all products, Ervin has maintained this competitive advantage; the primary objective of the manufacturing sites is to strengthen and expand the quality gap and, indeed, supply the best steel abrasives in the world.

The famous Tecumseh Research and Development Center is constantly providing new technologies which, year after year, make **Ervin Amasteel shot and grit the most cost-effective and productive in operation.**

The Ervin Test Machine further exemplifies how Ervin is setting standards. Hundreds of testers have been sold worldwide. Most manufacturers and large users of steel abrasives use **the Ervin Test Machine to monitor and benchmark their quality.**

In over 100 countries, quality-orientated and cost-conscious companies choose Ervin shot and grit as the most effective steel abrasives, to the point that the word "ervining" has become a synonym of "quality and performance blasting". Most manufacturers of blasting machines and air-blast rooms recommend Ervin, in order to ensure the highest productivity of their equipment.

No wonder **Ervin Amasteel is the largest selling brand of steel abrasives in the world for all blasting applications!**

The world
standard for
quality

ERVIN SHOT & GRIT

MICROSTRUCTURE

Fine and uniform tempered martensite

Fine and uniform tempered martensite x100



DENSITY

Shot.....7,0 Min

Grit.....7,3 Min

HARDNESS

S Shot & Grit40-50 HRC / 390-530 HV

M Shot & Grit.....47-56 HRC / 470-610 HV

L Shot & Grit.....54-61 HRC / 580-720 HV

H Grit.....60 HRC / 700 HV minimum

CHEMICAL ANALYSIS

Carbon0,80% - 1,2%
 Manganese S-70.....0,35% - 1,2%
 Manganese S-170.....0,50% - 1,2%
 Manganese S-230 and up, Grit0,60% - 1,2%
 Silicon0,4% Min
 Sulphur0,05% Max
 Phosphorus0,05% Max

PACKAGING

1 Tonne Bulk Bag
 1 Tonne Pallet, 25 kg, Paper Bags X 40

SHOT	SCREEN SIZE (mm)	2.8	2.36	2	1.7	1.4	1.18	1	0.85	0.71	0.6	0.5	0.42	0.35	0.3	0.18	0.12
	SCREEN No.	7	8	10	12	14	16	18	20	25	30	35	40	45	50	80	120
	NUMBER OF PARTICLES PER KG																
S780	20 000	AP		85% MIN	97% MIN												
S660	35 000		AP		85% MIN	97% MIN											
S550	60 000			AP		85% MIN	97% MIN										
S460	100 000			AP	5% MAX		85% MIN	96% MIN									
S390	150 000				AP	5% MAX		85% MIN	96% MIN								
S330	250 000					AP	5% MAX		85% MIN	96% MIN							
S280	500 000						AP	5% MAX		85% MIN	96% MIN						
S230	800 000							AP	10% MAX		85% MIN	95% MIN					
S170	1 500 000								AP	10% MAX		85% MIN	97% MIN				
S110	4 000 000										AP	10% MAX			80% MIN	90% MIN	
S70	10 000 000												AP	10% MAX		80% MIN	90% MIN

GRIT	SCREEN SIZE (mm)	2.8	2.36	2	1.7	1.4	1.18	1	0.71	0.42	0.3	0.18	0.12	0.07
	SCREEN No.	7	8	10	12	14	16	18	25	40	50	80	120	200
G10		AP		80% MIN	90% MIN									
G12			AP		80% MIN	90% MIN								
G14				AP		80% MIN	90% MIN							
G16					AP		75% MIN	85% MIN						
G18						AP		75% MIN	85% MIN					
G25							AP		70% MIN	80% MIN				
G40								AP		70% MIN	80% MIN			
G50									AP		65% MIN	75% MIN		
G80										AP		65% MIN	75% MIN	
G120											AP		60% MIN	70% MIN

SPECIFICATIONS

SHOT:
 SAE J444
 SAE J827

GRIT:
 SAE J444
 SAE J1993

AP = All pass
Min = Minimum
Max = Maximum

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