

The logo consists of the letters 'WA' in a bold, red, sans-serif font.

wheelabratorallevard

A photograph of a flock of birds flying in a V-formation against a blue sky with light clouds. The text 'a new world leader' is overlaid on the right side of the image.

a new world leader

Product Benchmark Wheelabrator Allevard and Typical Asian Competitor

Abrasive Durability, Life Measurement

The number of times abrasives can be used repeatedly.

Abrasive durability cannot be judged by its appearance.

Abrasive performance is highly dependent on chemical compositions, heat treatment (quenching / tempering), and how many inner defects exist or not in particles.

These items are examined by a special endurance testing machine.

A real example of an investigation on S550 steel shot;

Chemical compositions wt%

Name	Carbon %	Sulfur %
SAE J827 Spec.	0.8 – 1.2	0.05 Maximum
S550 Asian Benchmark	1.3	0.07
S550 made WA	0.85	0.022

Life 100% break-down method, take-out screen size; 425 micrometer

Name	Number of cycles	Difference
S550 Asian Benchmark	2,236	68 % (-32%)
S550 made by WA	3,289	100 %

Blasting Performance and Hardness

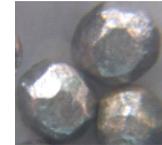
Hard abrasives give high blasting performance and repulsion, which contribute to blasting time reduction.

However, vulnerable metallic microstructure would cause particles to easily break and possibly result in a considerable increase in abrasive consumption.

Hardness Hv0.5, N=10

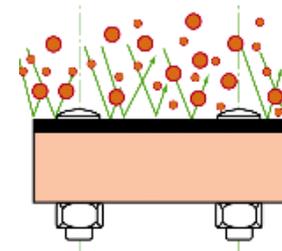
Name	Min.	Max.	Range	Ave.
SAE J827 Spec.	392	528		
S550 Asian Benchmark	373	434	61	402.6
S550 made by WA	439	484	45	465.4

Deformed Chinese product due to low hardness



Arc-height mmA

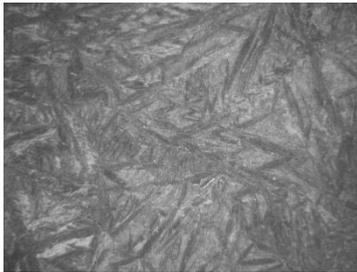
Name	Arc-height	Difference
S550 Asian Benchmark	0.445	89 %(-11%)
S550 made by WA	0.502	100 %



It is recommended that metallic microstructure has uniform martensite that is also recommended in SAE J827.

However, many Asian products have rough pearlite microstructure, which causes particles to easily break and result in an increase in abrasive consumption.

Metallic microstructure of **S550 Asian Benchmark**



Brand-new abrasive
x400

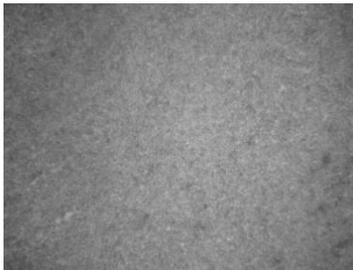


Abrasives used in a real machine

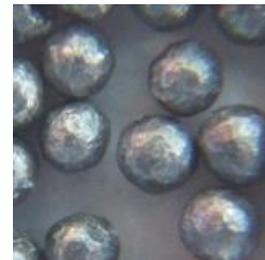


Operating mix
x15

Metallic microstructure of **S550 made by WA**



Brand-new abrasive
x400



Operating mix
x15

Comparison of Real Blasting Costs

Simulation with Asian Benchmark S550 and S550 of Wheelabrator Allevard

WA product's high durability and quality results in a significantly lower total blasting cost, even allowing for Asian Benchmark's marginally lower unit price.



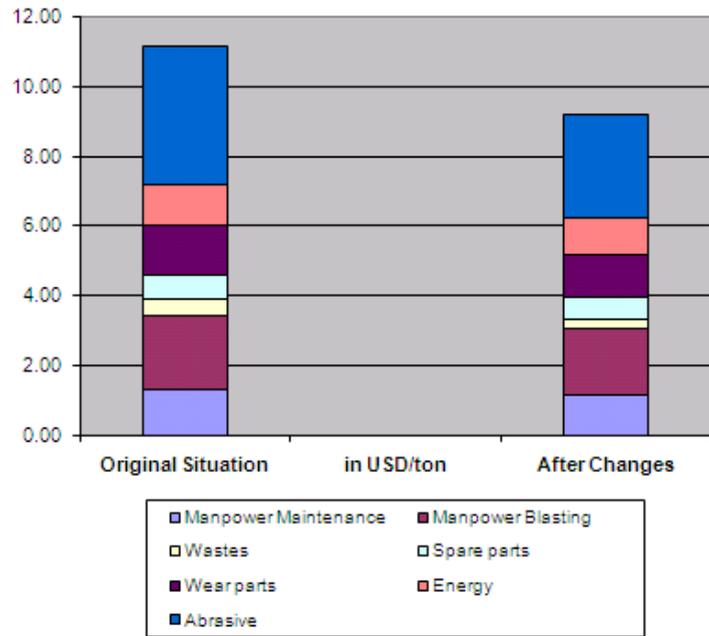
TRUE COST of LOW PRICES 1.1

FOUNDRY SIMULATION

PARAMETERS	Original Situation		After Changes
Abrasive price	800	in USD/ton	1,000
Abrasive life time	100	base 100	147
Abrasive blasting efficiency	100	base 100	113
Annual consumption	100	in tons	60

PROCESS COST DETAIL	Original Situation	in USD/ton	After Changes
Manpower Maintenance	1.33		1.17
Manpower Blasting	2.12		1.88
Wastes	0.46		0.27
Spare parts	0.72		0.63
Wear parts	1.42		1.25
Energy	1.16		1.02
Abrasive	4.00		3.01
TOTAL	11.19		9.24
			-17.4%

True Cost per Unit of Production Foundry Simulation





30 crews of WALUE (WA Leading Unit for Expertise) support the customers worldwide.

On site solutions

Through field work ; support to reduce cost
support to improve productivity
support to solve problems

Test center solutions

Blasting process optimization ; to conduct trials, reflecting the condition of customer's real machine

Training solutions

Training for blasting machine operators to develop their skills,
Technical support to engineers and managers



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Why Choose WA Products?

Wheelabrator Allevard's high-quality abrasives with superior performance provide a lower total cost to our customers based on:

unit price × abrasive consumption

plus

blasting performance × blasting time

Wheelabrator Allevard Group can assist your business achieve real savings via our global technical support and diagnostics capabilities
