



# Your Blasting Abrasive Matters More than you Think

Including a Quick Comparison Guide to  
Common Industrial Blasting Abrasives.

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CONSUMPTION



PRODUCTIVITY



CLEAN UP COST



# Three critical areas that could make or break your business

Explore how the most common blasting abrasives compare on productivity, safety and cost.

## Improving Productivity

Productivity is the key to profitability. Lower priced abrasives can be deceptively expensive.



### PRODUCTIVITY

Higher productivity accelerates project completion.



### CONSUMPTION

Use less abrasive per square metre.



### CLEAN UP COST

Reduce labour, equipment and disposal costs.

## Meeting Project Deadlines

Choosing the right abrasive can keep projects on schedule.



### SURFACE QUALITY

A cleaner surface passes inspections.



### DUST

Minimise dust and keep workers safer.



### ABRASIVE SUPPLY

Unpredictable abrasive supplies can be costly.

## Protecting Workers and Communities

Abrasive blasting is a dusty business that can put workers and community health at risk.



### HAZARDS

Blasting can pose a serious risk to human health.



### ENVIRONMENT

Reduce contamination of soil and water bodies.



### RECYCLING

Choose an abrasive that can be used more than once.



# A Quick Comparison of Common Industrial Blasting Abrasives

	GMA Garnet™	Slag	Silica Sand	Metallic Abrasives	Aluminum Oxide	Crushed Glass
<b>Productivity (m<sup>2</sup>/hr)</b>	Medium/High	Medium	Medium/High	Medium/High	High	Low
<b>Consumption (kg/m<sup>2</sup>)</b>	10 - 19	24 - 39	39 - 59	2.5 - 5	10 - 19	39 - 59
<b>Surface Quality</b>	Minimal embedment. Consistent profile. No rework required.	Medium to high level of embedment. Possible rework required.	Medium to high level of embedment.	Steel grit: High level of embedment. Steel shot: No embedment.	High level of embedment.	Medium to high level of embedment. Possibility of chalky white residue.
<b>Dust</b>	Low	High Possibility of exceeding respirable hazardous limits.	High Possibility of exceeding respirable hazardous limits.	Low on initial blast. Possibilities of high dusting after recycling.	Low	High
<b>Heavy Metals and Hazards</b>	Trace amounts (significantly below OSHA limits). Some products have silica.	Arsenic Beryllium Cadmium Chromium Copper Lead Manganese Nickel Vanadium  <i>*Heavy metal content will vary depending on the type of slag abrasives, i.e. Copper, Coal, Nickel.</i>	Silica	Trace amounts (significantly below OSHA limits).	Trace amounts (significantly below OSHA limits).	Trace amounts (significantly below OSHA limits).
<b>Environmental Contamination Risk</b>	Low	High	Low	Low	Low	Low
<b>Disposal Cost</b>	Low	Medium to high possible extra costs for hazardous.	High	Low	Low	High
<b>Friability</b>	Low	High	High	Low	Low	High
<b>Toughness Recovered abrasive (After One Blast)</b>	70% - 80%	12% - 62% (coal slag) 30% - 40% (copper slag) 38% - 43% (nickel slag)	As low as 10% and up to 25%.	Up to 100%	Up to 70 to 80%	As low as 10% and up to 25%
<b>Hardness (Mohs Scale)</b>	7.0 - 8.0	6.0 - 7.0 (coal slag) 6.5 - 7.0 (copper slag) 6.0 - 6.5 (nickel slag)	5.0 - 6.0	7.5 - 9.0	8.5 - 9.0	6.0
<b>Specific Gravity (Density Relative to Water)</b>	4.1	2.7 (coal slag) 3.4 (copper slag) 2.8 (nickel slag)	2.5	7.4	3.9	2.5
<b>Bulk Density (t/m<sup>3</sup>)</b>	2.3	56 - 85 (coal slag) 90 - 112 (copper slag) 85 - 105 (nickel slag)	70 - 100	230 - 260	120	80
<b>Recycling</b>	Can be recycled 4 to 5 times.	Cannot be recycled.	Cannot be recycled.	Can be recycled 25 to 30 times.	Can be recycled 4 to 5 times.	Cannot be recycled.
<b>Supply</b>	Secure supply. Mined and produced domestically and internationally.	Supply restricted to existing waste piles (U.S.). Produced domestically and internationally.	Plentiful supply. Mined and produced domestically and internationally.	Plentiful supply. Produced domestically and internationally.	Supply disruptions. Not produced domestically.	Plentiful supply. Produced domestically and internationally.

Disclaimer: The data and information contained on this sheet are general representative ratings and should be used as a guide only.



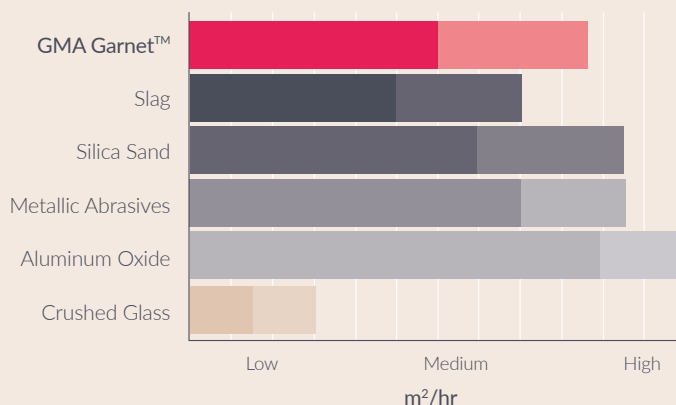
# Higher Productivity, Higher Profit

Productivity is the key to profitability. Lower priced abrasives can be deceptively expensive when taking into account productivity, consumption and disposal costs.



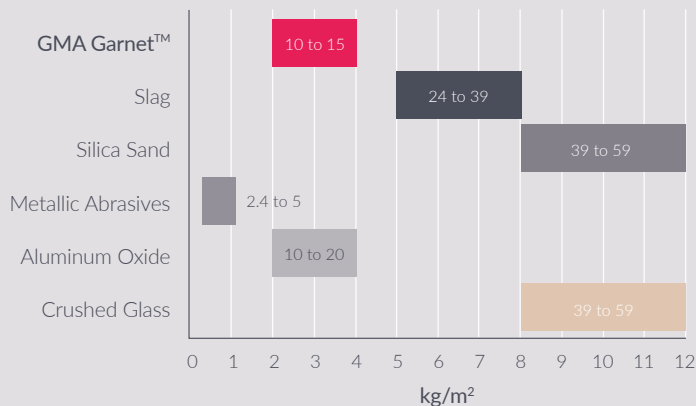
## PRODUCTIVITY

Faster blast performance means higher productivity and accelerating project completion.



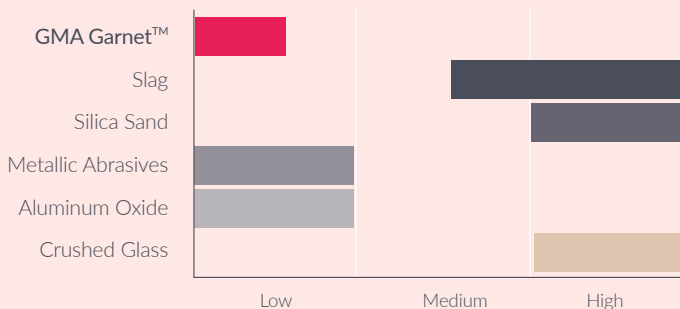
## CONSUMPTION

Lower consumption results in less abrasive required per square foot. Calculate the abrasive cost per square metre, not per tonne.



## DISPOSAL COST

Using less abrasive means less to clean up; reducing labour, equipment and disposal costs.

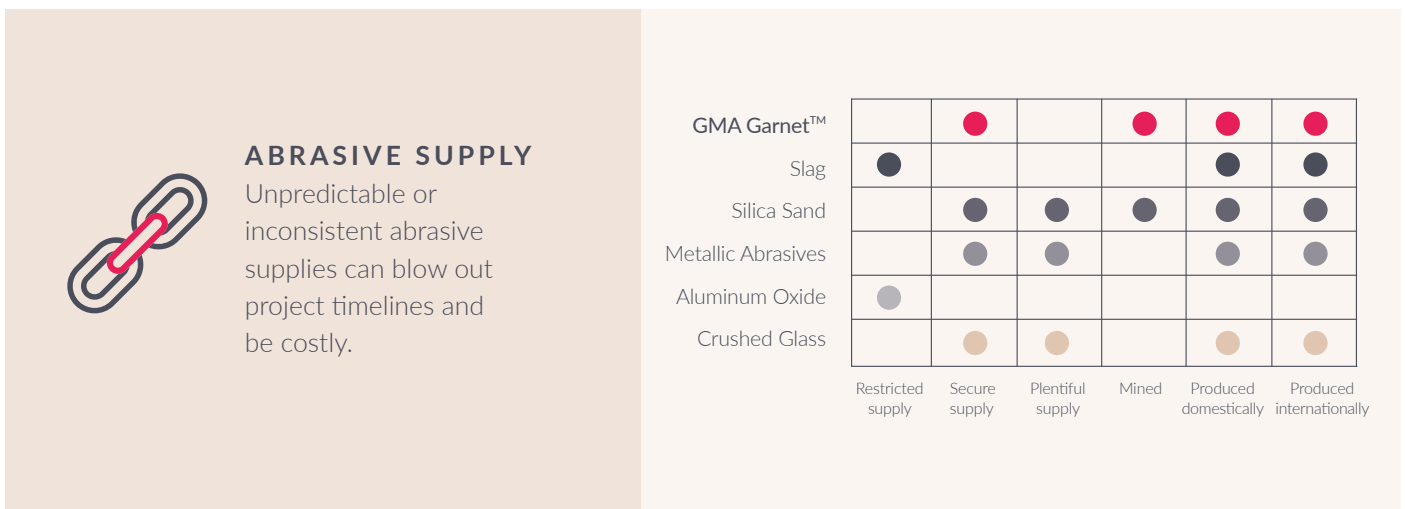
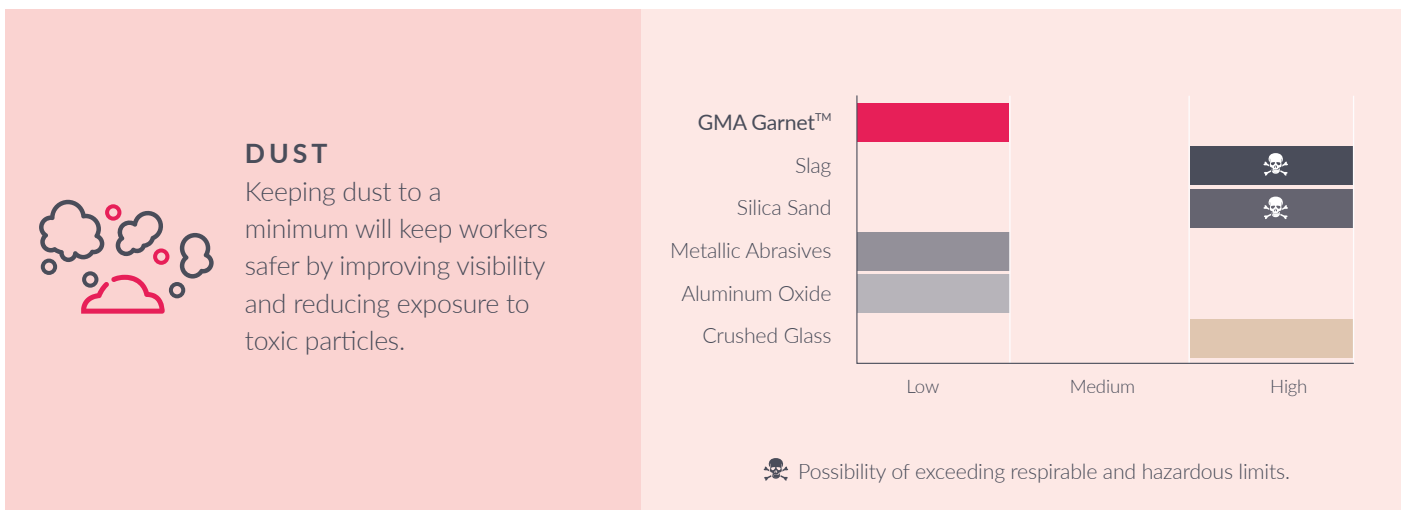
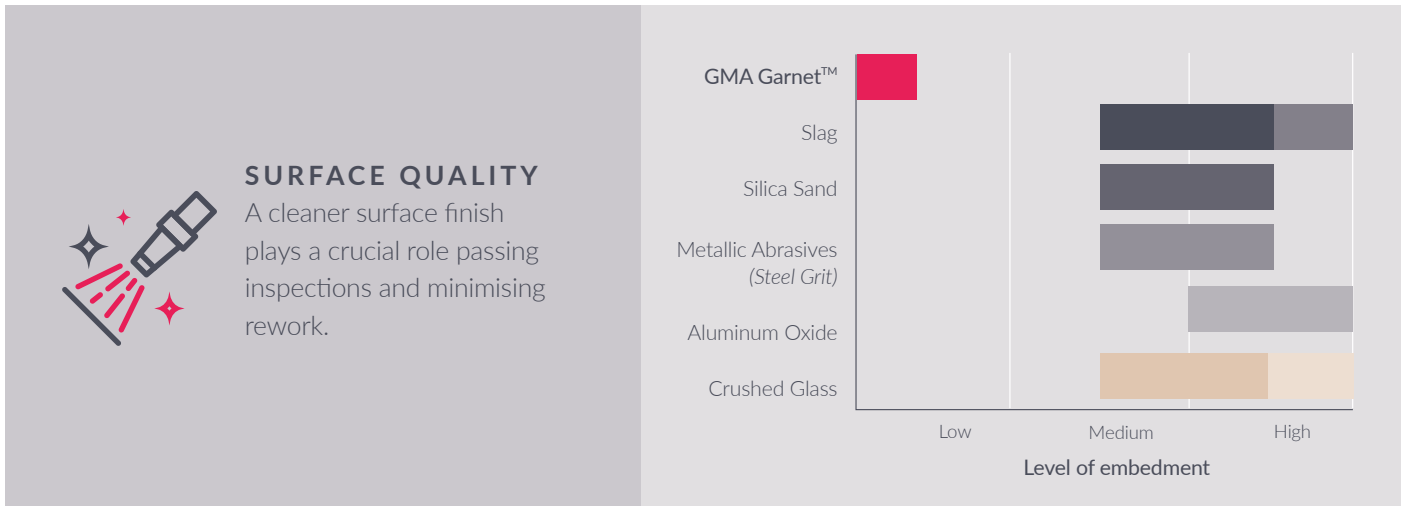


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# Meet Project Deadlines

Choosing the right abrasive can keep projects on schedule. Don't run the risk of inspection failures, poor visibility and inconsistent supplies causing delays and budget overrun.



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# Protect Workers and Communities

Abrasive blasting is a dusty business that can contaminate the air, soil and water, putting workers and community health at risk.



## HEAVY METALS AND HAZARDS

Blasting can pose a serious risk to human health by exceeding toxic respirable exposure limits.

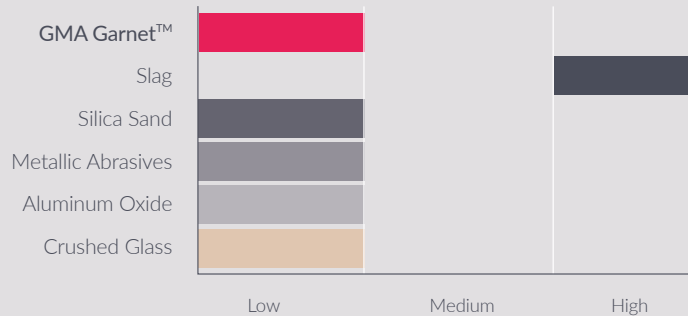
GMA Garnet™	●	●											
Slag*	●	●	●	●	●	●	●	●	●	●	●	●	●
Silica Sand	●												
Metallic Abrasives	●												
Aluminum Oxide	●												
Crushed Glass	●												
Trace Metals**	Silica	Arsenic	Beryllium	Cadmium	Chromium	Copper	Lead	Manganese	Nickel	Vanadium			

\*Heavy metal content will vary depending on the type of slag abrasives, i.e. Copper, Coal, Nickel  
\*\*significantly below OSHA limits



## ENVIRONMENTAL CONTAMINATION

Reduce the risk of contaminating soil and water bodies, including water tables that supply drinking water.



## RECYCLING

Choose an abrasive that can be used more than once. Recover costs, minimise waste and maximise resources.

	Cannot be recycled	Can be recycled 4 - 5 times	Can be recycled 25-30 times
GMA Garnet™		✓	
Slag	✗		
Silica Sand	✗		
Metallic Abrasives			✓
Aluminum Oxide		✓	
Crushed Glass	✗		

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**GMA MIDDLE EAST**

P.O. Box 17608, Jebel Ali Free Zone  
Dubai, United Arab Emirates

**TF** 800 GARNET | 800-427638 (UAE)

**T** +971 4 883 7577

**E** [info.me@gmagarnet.com](mailto:info.me@gmagarnet.com)

**[gmagarnet.com](http://gmagarnet.com)**