

COPPER SLAG

INDUSTRY REPORT:
Facts vs. Fiction in Slag Blasting



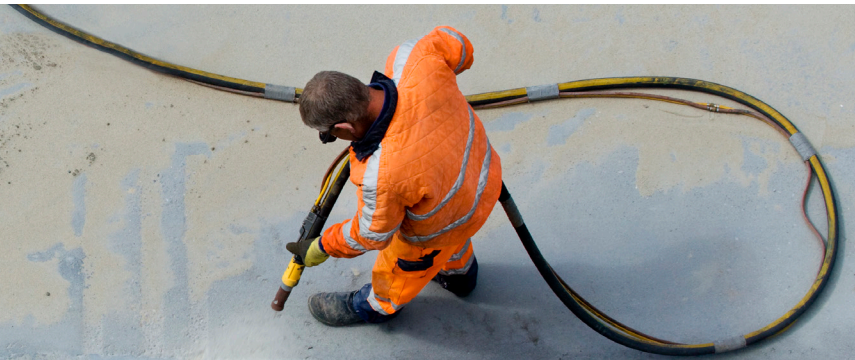
US-Minerals.com | 800.803.2803



BlackDiamondAbrasives.com

PROVEN SAFE

COPPER SLAG
50 YEARS OF INDUSTRY-LEADING SAFETY



Know Your Options

The blasting media you select can critically impact your project's success and your bottom line. Throughout multiple industries, selecting which abrasive product to use often comes down to a matter of habit, which can lead to a less effective, and financially taxing, choice of blasting media. Copper slag provides an additional option as a leading abrasive to use when ranked on performance and cost per sq. ft.

Copper slag, alternatively referred to as iron silicate, is a by-product of copper's refining processes. As a blasting abrasive, it's a low-cost, high-efficiency product with angular particles that are uniform in weight and gradation for fast-cutting strength. In addition to raw cutting power, U.S. Minerals produces the largest number of standard gradations on the market today, making it an ideal choice for a wide variety of projects and applications.

Blast With Confidence

For decades, abrasive blasting has set the standard for on-site surface preparation. Copper slag carries on the standards of traditional blasting media while delivering more outstanding performance and safety. For over 50 years, copper slag has been a go-to abrasive around the world as a demonstrably safer alternative when used properly.

As with any abrasive media, all blasting involves an inherent degree of risk. When taking appropriate precautions in your surface preparation, copper slag is proven to be just as safe as any alternative—despite claims you may have heard from other abrasive suppliers. By following OSHA safety standards, you can blast with confidence, knowing that you're well protected.



RELY ON COPPER

Copper Slag does not pose the health hazards that are inherent to an alternative like silica sand. A low dusting blasting media, Copper Slag, is also chemically inert, which means you can blast with confidence knowing that you're using an abrasive that's safe and reliable.

PROVEN SAFE

Blast With Assurance

Copper Slag has all the safety you would expect from a blasting media while providing the high-quality, cost-effective blast you can't get with other alternative abrasives. From the Society for Protective Coatings to the EPA, and even the United States Navy, Copper Slag has been tried, tested, and approved. As government regulations continue to shape the landscape of industrial abrasives, Copper Slag's certifications provide project foreman, safety managers, and on-site crew members alike with the peace of mind that comes with knowing they're using a blasting media that's dependable, powerful, and proven safe.

Licensed blenders can also mix Copper Slag with Blastox® for lead paint abrasive blasting to encapsulate the lead particles and render them non-hazardous. In certain regions, Copper Slag has been U.S. Navy QPL (Mil-22262) approved to cut through years of marine buildup.

COPPER SLAG
TRIED, TESTED, AND APPROVED.



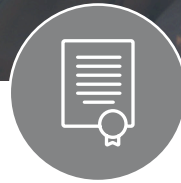
SSPC-AB 1

Copper Slag meets SSPC-AB 1 testing criteria.



47% STRONGER

Customers have seen up to a 47% production rate improvement from switching to Copper Slag.



PROVEN SAFE

A low dusting blasting media, copper slag lets you blast with confidence knowing that you're using an abrasive that's safe and reliable.



APPROVED FOR BENEFICIAL REUSE

Copper Slag pushes your supply even further by avoiding landfills through spent abrasive recycling, saving you time and money.



VICTORY, ASSURED.

Copper Slag was used to safely return the 1960s-era destroyer, USS Turner Joy, to its home in Bremerton Harbor after removing 25 tons of sea growth covering a surface area of 30,000 sq. ft.

PROVEN EFFECTIVE

Blast With Strength

From rail car facilities and shipyards to blasting surfaces clean of light rust and coatings, Copper Slag has the power to get the job done fast. Companies requiring heavy-duty strength to cut through years of buildup, and those looking to maximize production rates at the lowest price point, rely on Copper Slag to provide market-leading blasting power.

Copper Slag's hard angular particles are uniform in both weight and gradation; combined with a Mohs Scale rating between 6 and 7 in addition to low friability, it delivers fast-cutting strength for even the most demanding projects. 20% heavier than other mineral abrasives such as coal slag, Copper Slag, has a specific gravity of 3.4, putting it a tenth of a point below diamonds. It

provides a density and muscle that cuts through anywhere from 15% to 47% faster than leading alternatives.

COPPER **SLAG**
WORKS UP TO 47% FASTER

Side-by-side comparisons between the production rates of Copper Slag to alternative blasting media provide clear results; Copper Slag provides drastically improved production rates, enabling crew members to complete twice the work in half the time. When the going gets tough, the tough use copper.



Iron Pillar Energy used Copper Slag to meet the challenge of maximizing its production rate at the lowest price point head-on. The switch to Copper Slag resulted in a production rate improvement of 47% for a significantly more powerful, more cost-effective blast.

PROVEN EFFECTIVE

Blast With Value

Copper Slag works better. It's the low-cost abrasive with the high-efficiency needed to get any job done quickly, cleanly, and correctly. As a 20% heavier alternative to other mineral abrasives, Copper Slag results in 20% less product consumption, less disposal cost, and provides a more cost-effective blast than competitors such as garnet, aluminum oxide, nickel, or glass.

And with the largest number of standard gradations on the market, Copper Slag makes an ideal choice for a wide range of industries and worksites. From cleaning new steel and clearing away light rust to blasting away decades of excess build-up and large-scale repair projects, Copper Slag has a gradation to meet the needs of almost any project while saving time and money.

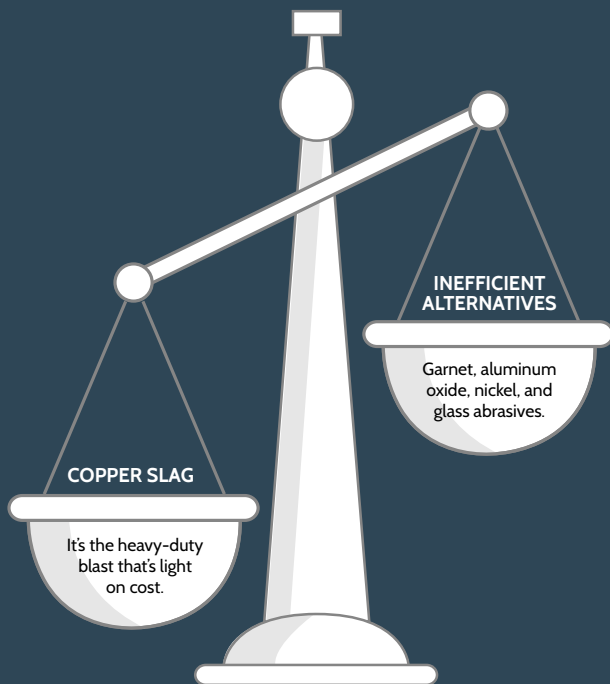
COPPER SLAG
THE ELEMENT OF SUCCESS

20%
HEAVIER
ALTERNATIVE
THAN OTHER
MINERAL ABRASIVES

20%
LESS PRODUCT
CONSUMPTION
THAN OTHER
MINERAL ABRASIVES

20%
MORE COST
EFFECTIVE BLAST
THAN OTHER
MINERAL ABRASIVES

Not All Abrasives Are Created Equal



GRADATIONS AVAILABLE

Did You Know?

U.S. Minerals offers more grade options than anyone else in the industry.

Coarse

1240

1630

2040

2850

3060

4080

Fine



1240

MIL PROFILE: 3.5-4.5
NOZZLE (MIN): 5/16"

- Moderate profile
- Near white blast
- Medium to heavy coatings, heavy rust, and heavy mill scale
- General purpose repair and maintenance

1630

MIL PROFILE: 3-4
NOZZLE (MIN): 5/16"

- Similar cutting efficiency as 1240
- Smoother profile associated with 2040
- Medium to light coatings

2040

MIL PROFILE: 2-3.5
NOZZLE (MIN): 1/4"

- Light rust, mill scale, enamels, and acrylics
- Moderate profile
- White to near white blast
- New construction, exposed aggregates, bridge maintenance

2850

MIL PROFILE: 1.5-3
NOZZLE (MIN): 1/4"

- Similar cutting efficiency as 2040
- More precise profile of 3060
- New steel or surfaces with light coatings
- Moderate to slight profile

3060

MIL PROFILE: 1-2.5
NOZZLE (MIN): 1/8"

- Slight profile
- Near white blast finish
- Light rust and mill scale removal
- Can also be used in wet abrasive

4080

MIL PROFILE: .75-1.5
NOZZLE (MIN): 1/8"

- Delicacy for glass etching
- Brush surfaces clean of light rust
- Light cleaning of new steel, farm, household, or automotive equipment
- Slight profile

HIT HARDER. CLEAN FASTER.



Go Copper and Get It Done

Copper slag delivers the safe, powerful, and cost-effective solution for blasting away buildup on massive industrial projects to brushing smaller-scale surfaces clean. No matter how remote your worksite or how demanding your undertaking, Black Diamond Copper Slag from U.S. Minerals is the superior choice. Sourced from only the highest quality raw copper slag, Black Diamond Copper Slag is never mixed or diluted to ensure that you always get the best abrasive for the most outstanding blast.

From preparing a product for its first application of paint to restoring a decades-old, weathered exterior to its former glory, Black Diamond Copper Slag can blast nearly any surface to the

target profile and finish. Compare Black Diamond Copper Slag's efficiency and power with alternative low-dusting abrasive media, and U.S. Minerals wins every time. With more grade sizes than anyone else in the industry, Black Diamond Copper Slag offers more options with more power, all at less cost.

A trusted leader in abrasive media, U.S. Minerals delivers abrasive blasting media with unmatched quality, safety, and service to the hardworking craftsmen and tradesmen throughout North America. Discover the new element of your success with Black Diamond Copper Slag.



PLANT LOCATIONS

Anaconda, MT Harvey, LA
Baldwin, IL La Cygne, KS
Coffeen, IL Roberts, WI
Galveston, TX

CONTACT US

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