



CoreBlast™ Media

Technical Data

100% RECYCLED CRUSHED GLASS BLAST MEDIA

What is it?

CoreBlast™ is an engineered “sandblasting” media manufactured from 100% Recycled Bottle Glass (CBM Grades) or Plate Glass (MG Grades). **CoreBlast™** can be used as a direct replacement for most hard abrasives, including silica-sand, Olivine, lava, coal slag (aka Black Beauty), and aluminum oxide. Crushed Glass is approved for use in numerous federal and state government agencies, and military branches.

Benefits of Glass Blasting

In addition to worker safety benefits, **CoreBlast™** crushed glass media delivers a natural, whiter metal finish than many other sandblasting abrasives, and significantly decreases embedment issues—up to 5 times less than slag blast media. **CoreBlast™** works well for removing thick, tough coatings, and numerous surface preparation applications—glass can create a profile of up to 4 mils on hardened steel. **CoreBlast™** is versatile, and can be used as a dry blasting media or combined with water for use in slurry blasting machines.

Specially Engineered for Dustless Blasting

CoreBlast™ Grade CBM-4070 has been specially engineered for dustless blasting machines utilizing water with the abrasive. CBM-4070 is sized within extremely tight parameters and is almost completely free of any small label remnants from the recycled glass bottles. This allows for smooth, clog-free operation.

Eco and Operator-friendly Blasting Media

CoreBlast™ 100% recycled glass media eliminates the health risk of airborne carcinogens. It is non-hazardous, non-toxic and completely inert, so is safe to use around water. Glass dust is classified by OSHA/NIOSH as only “nuisance” dust because it contains less than 1% free silica. Glass also does not contain virtually any of the OSHA identified Heavy/Toxic Metals associated with slags and some other mineral abrasives such as Olivine. Lastly, since **CoreBlast™** glass is translucent,

visibility and productivity are significantly improved when compared to a blast environment using traditional hard abrasives.

How Can Glass be Silica-free?

Recycled bottle glass is chemically known as Amorphous Aluminosilicate. Free-silica is commonly found in traditional blasting sand and other hard abrasive sandblasting medias. Silica-sand dust in its natural state has an “open” crystalline structure that has the capability of sticking to lung tissues. When this happens, the likelihood of developing a serious respiratory disease called *Silicosis* increases. Because our **CoreBlast™** recycled glass blast media is amorphous, its crystalline structure is “closed,” which makes it impossible to physically stick to human lung tissue. When a person is exposed to amorphous glass fines or dust, the body will expel the dust as it would any other type of natural dirt.

Qualified for Use

Crushed glass has been added to the qualified products list by the US Navy. Crushed glass is qualified under MIL-A-22262-B, Amendment 2—Abrasive Blasting Media for ship hull blast cleaning. Based on toxicological safety evaluations by the Naval Environmental Health Center (NEHC), Crushed Glass Grit can be safely used for its intended purpose. The addition of crushed glass to QPL includes 12-30 mesh (*cf.* CBM-1220); and 30-70 mesh (*cf.* CBM-4070).

Save Money Too!

CoreBlast™ crushed glass media is less dense than other sandblasting media. This means greater productivity due to more blast time between pot refills AND less material will be used, which reduces both disposal and media costs.

Please contact us for more information and an MSDS.

Typical Chemical and Physical Properties

NOT FOR SPECIFICATION PURPOSES

Chemical Composition: **CBM:** SiO₂ 70-80%; Na₂O+K₂O 10-16%; CaO 9-13%; Al₂O₃ 1-5%; Fe₂O₃ <1%; MgO <1%; SO₃ <0.5%; TiO₂ <0.1%; LOI <1%; Pb < 40 ppm. **MG:** SiO₂ 69-74%; Na₂O+K₂O 10-18%; CaO 5-14%; Al₂O₃ 0-3%; Fe₂O₃ 0-0.2%; MgO 0-6%; Others 0-5%; LOI <0.1%.

| CoreBlast™ Grades | CBM 1220 MG 1220 | CBM 2040 MG 2040 | CBM 4070 MG 4070 | CBM 80 MG 80 |
|---|---------------------|---------------------|---------------------|-----------------|
| Specific Gravity ^(a) | 2.5 | 2.5 | 2.5 | 2.5 |
| Bulk Density, lb/ft ³ ^(b) | 85 | 85 | 85 | 85 |
| D98 top size, mesh ^(c) | 12 | 20 | 40 | 80 |
| Size range, mesh ^(d) | 12-20 | 20-40 | 40-70 | <80 |
| pH ^(e) | 10-10.5 | 10-10.5 | 10-11 | 10-11 |
| Color ^(f) | off white | off white | off white | Off white |
| Hardness ^(g) | 5.5 | 5.5 | 5.5 | 5.5 |
| Free moisture, % ^(h) | <0.5 | <0.5 | <0.5 | <0.5 |



CoreBlast™ recycled glass blast media (3-mix): CBM 2040 (left); CBM 4070 (right).

Product Codes: **CBM**, Bottle Glass; **MG**, Plate Glass

Test Methods: ^(a) ASTM C127; ^(b) ASTM C127; ^(c) ASTM C136; ^(d) ASTM C136; ^(e) AFS 113-87S; ^(f) visual; ^(g) Mohs Scale; ^(h) ASTM C566.

Product Information/Customer Service:

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Email: technicalsales@vitrominerals.com

Standard Packaging: 50 lb paper bags/56 per pallet/2800 lb per pallet
3,000 lb supersacks
Bulk tanker

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Health Hazard Warning: Prolonged inhalation of dust associated with the materials described in this data sheet can cause delayed lung injury. Avoid creating dust when handling, using or storing. Follow OSHA Safety and Health Standards for fugitive dust. Current Material Safety Data Sheet containing safety information is available and should be consulted before usage.

Vitro Minerals

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