

BLASTING ABRASIVES

for dry or wet abrasive blasting



silica
sand



garnet



crushed
glass



mineral
sands



coal
slag



glass
beads



plastic



walnut



8 ABRASIVES COMPARED

The following data is intended **for orientation purposes** only. These are approximations of general product categories. Specific products vary significantly. Check the manufacturer's data sheets for the most current and accurate information.

Depth profile estimates are based on mild steel at 90-100 psi, nozzle at 18" at a 110 degree angle using a Geoblaster GB 600 wet abrasive blaster.



1. SILICA SAND

Silica sand is the original blasting abrasive, but is **no longer recommended for blasting** applications due to the occupational hazard silicosis. It is included here for comparative purposes only.

- ▶ Mesh sizes: 6-270
- ▶ Hardness: 5-6 MOHS
- ▶ Density: 2.65 SG
- ▶ Shape: Rounded
- ▶ Cost: €



2. GARNET

Garnet is a gemstone with excellent naturally abrasive properties. This hard abrasive is **fast-cutting**, **low-dust producing** and **low-consuming**, excellent for removing tough coatings, paint, rust and mill scale from steel. Garnet is a good general outdoor surface preparation abrasive, permitting precise control.

- ▶ Mesh sizes: 30-120
- ▶ Hardness: 7-7.5 MOHS
- ▶ Density: 3.5-4.3 SG
- ▶ Shape: Subangular
- ▶ Cost: €€€



2. GARNET

Depth profiles for garnet (for steel)

Mesh Size	Max Profile	Recommended Usage
30/60	2.5 - 4.7 mil	Steel, Concrete, Asphalt, Aluminium
80	1.5 - 3.6 mil	Steel, Concrete, Asphalt, Aluminium
120	0.5 - 2.0 mil	Steel, Concrete, Asphalt, Aluminium, Fiberglass, Brick, Boat Bottom Paint
150	0.5 - 1.5 mil	Steel, Concrete, Asphalt, Aluminium, Fiberglass, Brick, Boat Bottom Paint

3. CRUSHED GLASS

Made from 100% recycled glass, this abrasive creates a sharp profile and is useful in removing a **variety of coatings**. It produces a **whiter, cleaner finish** than slags and mineral sands. Crushed glass is the abrasive of choice for preparing **concrete**.

- ▶ Mesh sizes: 30-400
- ▶ Hardness: 5.5-7 MOHS
- ▶ Density: 2.5 SG
- ▶ Shape: Angular
- ▶ Cost: €



3. CRUSHED GLASS

Depth profiles for crushed glass (for steel)

Mesh Size	Max Profile	Recommended Usage
20/30	2.5 - 4.5 mil	Steel, Concrete, Asphalt, Aluminum, Fiberglass, Brick
30/70	2.0 - 3.5 mil	Steel, Concrete, Asphalt, Aluminum, Fiberglass, Brick, Boat Bottom Paint
50/100	0.5 - 2.5 mil	Steel, Concrete, Asphalt, Aluminum, Fiberglass, Brick, Boat Bottom Paint

4. MINERAL SANDS

Mineral sands, like olivine and staurolite, are **fast-cutting, low dust abrasives** that contain less than 5% silica per volume. Good for removal of **rust, paint, weathered coatings** and **mill scale**.

- ▶ Mesh sizes: 20-120
- ▶ Hardness: 6.5-7.5 MOHS
- ▶ Density: 3.3-3.6 SG
- ▶ Shape: Angular to subangular (olivine), subangular to rounded (staurolite)
- ▶ Cost: €€



5. COAL SLAG

Coal slag is by-product of coal-burning power plants. It is a **relatively cheap, low dusting abrasive with low free silica**, but is **not widely used** because the high amount of fine particles mud up on the surface. Typical applications include the removal of **rust, paint, weathered coatings** and **scale from steel and concrete**.

- ▶ Mesh sizes: 12-80
- ▶ Hardness: 6-7.5 MOHS
- ▶ Density: 2.7 SG
- ▶ Shape: Angular
- ▶ Cost: €



6. GLASS BEADS

Glass beads are used for general cleaning, peening and cosmetic finishing of sensitive **metal surfaces**; removing **automotive paint**; brightening grout and removing fungus and calcium deposits from **tile**; polishing **cast iron, stainless steel, aluminium, propellers** and **turbine blades**.

- ▶ Mesh sizes: 30-325
- ▶ Hardness: 5.5-6 MOHS
- ▶ Density: 2.5 SG
- ▶ Shape: Rounded
- ▶ Cost: €€€



7. PLASTIC

Plastic is a **soft, light abrasive** that leaves **no anchor pattern**, good for stripping paint and mold from **sensitive surfaces**, deburring and deflashing aluminium, brass, plastics and fiberglass. Considered a less-hazardous alternative to chemical stripping, and faster than hand-stripping.

- ▶ Mesh sizes: 12-80
- ▶ Hardness: 3-4 MOHS
- ▶ Density: 1.5 SG
- ▶ Shape: Angular
- ▶ Cost: €€€



8. WALNUT

Nut shells and other organic materials **don't cause anchor patterns**, making them useful for cleaning dirt, grease, oil, carbon, scale, burrs and paint **without changing the underlying substrate**. Useful for cleaning auto body panels, electric motors and aircraft engines, dies and molds, polishing watches and jewelry, and restoring antique surfaces.

- ▶ Mesh sizes: 6-100
- ▶ Hardness: 3-4 MOHS
- ▶ Density: 1.2-1.35 SG
- ▶ Shape: Subangular
- ▶ Cost: €€€



**WANT TO KNOW
MORE ABOUT WET
ABRASIVE BLASTING?**

VISIT WWW.BLASTJOURNAL.COM

