



Algrain Products (P) Limited

Aluminium Oxide and Coated Abrasive Manufacturer

*Algrain is the leading manufacturer of
Aluminium Oxides in India*

Since 1998



“Our quality for which we are proud of, starts from sourcing of our raw material to comprehensive quality in in-process and end user stages.”

25 Years

Of Experience

10,000 +

Service Provided

1,000 +

Happy Customers

Who trusted us!

We Algrain,

Founded in 1998 by an aspiring technocrat K.Sathyanathan who has vast experience and in depth knowledge in the field of abrasives and its allied services, located at Hosur, one of the largest industrial town in Tamil Nadu, the company has grown by leaps and bounds since its inception to become one of the leading manufactures of Aluminium Oxides in India.

Our wide range of products are well received in all industries like abrasive , refractories, abrasive blasting and paint industries. We do customized special purpose products based on requirements. Our quality for which we are proud of, starts from sourcing of our raw material to comprehensive quality in in-process and end user stages. In a short span, Algrain Products has established a name for its quality products and as a result we supply to numerous renowned industries all over the world.

OUR QUALITY



“Our Priority is to serve Quality Products to the Clients”

The company deals in product quality that confirm the norms of FEPA standard certification or as per customers requirements. As our priority is to serve quality products to the clients, various stringent quality tests are conducted in our well equipped laboratory.

Our Products

1. ALUMINIUM OXIDE GRAINS

- BROWN FUSED ALUMINA
- WHITE FUSED ALUMINA
- PINK FUSED ALUMINA

2. SILICON CARBIDE

- GREEN SILICON CARBIDE
- BLACK SILICON CARBIDE

3. ZIRCONIA GRAINS

4. EMERY GRAINS

5. GARNET

6. COATED ABRASIVES

- ROLLS
- BELTS
- FLAP WHEELS & MOP WHEELS
- FIBRE DISC & FLAP DISC
- PAPER DISC
- CLOTH DISC & SHEETS
- WATERPROOF SHEETS
- SLEEVES & CONICAL SLEEVES

7. POROUS TILES

Aluminium Oxide Grains

Aluminium oxide grains are produced by the smelting of Calcined Bauxite in an electric arc furnace at temperatures greater than 2200°C. It is the most commonly occurring of several aluminium oxides, and specifically identified as aluminium oxide.

It is significant in its use to produce aluminium metal, as an abrasive owing to its hardness, and as a refractory material owing to its high melting point. There are three types of aluminium oxide grains.

Applications:

- Brown Fused Aluminium Oxide is a tough, sharp abrasive which is highly suitable for grinding metals of high tensile strength. Its thermal properties make it an excellent material for use in the manufacture of Grinding wheels and refractory products. This material is also used in other applications like blasting and surface hardening.
- White Fused Aluminum Oxide is used for all kinds of bonded abrasives like surface grinding, external and internal cylindrical grinding, creep feed grinding of low or unalloyed steel, etc. General industrial applications include pressure blasting, micro derm abrasion, refractories, anti-skid, lapping and certain types of coated abrasive products.
- Pink Fused Aluminum Oxide are especially suitable for the manufacture of vitrified bonded abrasives for working hardened steels and alloys. It is also used in tool grinding, saw and knife-sharpening applications, precision grinding, profile grinding, etc.



Brown Fused Alumina

- Brown fused alumina is produced by the smelting of Calcined Bauxite in an electric arc furnace at temperatures greater than 2200°C.
- A slow solidification process follows the fusion, to yield blocky crystals. The melting help in removing residual carbon ,Strict control over Titania levels during the fusion process ensures optimum toughness of the grains.
- Then The cooled crude is further crushed, cleaned of magnetic impurities in high intensity magnetic separators and classified into narrow size fractions to suit the end use.
- Dedicated lines produce products for different applications.



White Fused Alumina

- White aluminum oxide is a high purity abrasive electrically fused from Bayer processed alumina.
- This product is ideal for applications that require minimal foreign contamination or higher friability than regular brown fused aluminum oxide.
- White Fused Aluminum Oxide macro grits are used for all kinds of bonded abrasives.
- Surface grinding, external and internal cylindrical grinding, creep feed. grinding of low or unalloyed steel, etc. General industrial applications include pressure blasting, micro derm abrasion, anti-skid, and lapping.

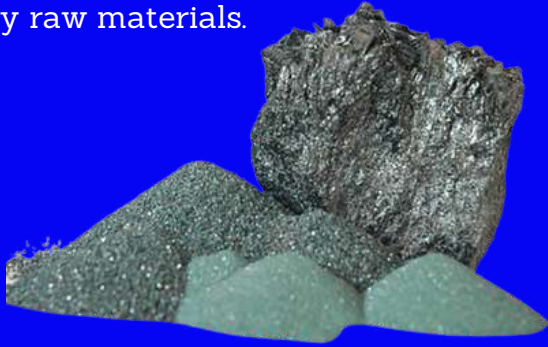


Pink Fused Alumina

- Pink Fused Aluminum Oxide contains chromium oxide, which gives the material its pink color.
- It produces a slight increase in toughness and a reduced friability compared with White Fused Alumina.
- Compared to Brown Regular Aluminum Oxide the Pink material is harder, more aggressive, and has better cutting ability. The grain shape of Pink Aluminum Oxide is sharp and angular.
- Especially suitable for the manufacture of vitrified bonded abrasives for working hardened steels and alloys It is also used in tool grinding, saw and knife-sharpening applications, precision grinding, profile grinding, etc.

Silicon Carbide Green

- Green Silicon Carbide is a high-purity silicon carbide. Green Silicon Carbide is a more friable crystal than Black Silicon Carbide.
- Silicon Carbide is commonly used in technical ceramics, refractory materials, electrical applications, coated and bonded abrasives. It is also used for grinding hard alloys where cool cutting is of utmost importance.
- Green Silicon Carbide is a high purity silicon carbide produced in an electrical resistance arc furnace with high purity quartz and coke as its primary raw materials.



Silicon Carbide Black

- Black Silicon Carbide is produced in electrical internal resistance furnaces from high purity silica sand and petroleum coke.
- Its combination of being very hard and sharp makes it a very aggressive abrasive ideal for many applications. Black SiC is typically used on hard or brittle materials.
- It is also used for kiln furniture, lapping and polishing, non-woven, tumbling, pressure blasting, anti-skid, electrical heating elements, aerospace, composites, etc.



Zirconia Grain

- The extremely fine crystalline microstructure allows for one of the most durable materials in the abrasives industry, outperforming commodity abrasives like brown fused aluminum oxide and silicon carbide.
- The most common applications are in bonded, coated and cut-off wheel applications, like grinding of stainless steel.

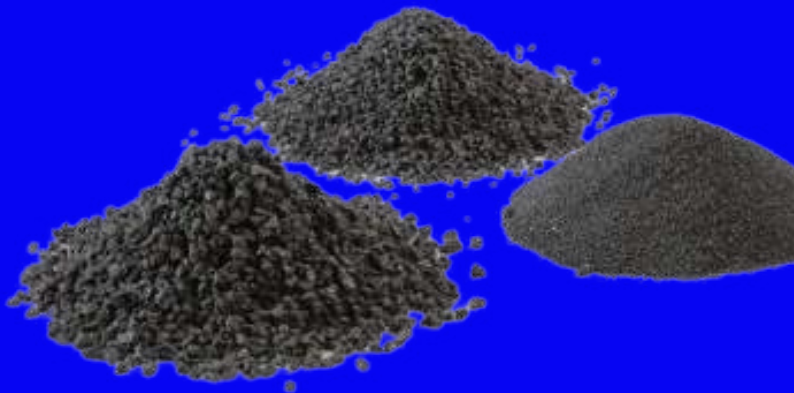


Emery Grains

- A natural occurring odorless mineral having its broadest use as an abrasive in polishing applications.
- An intimate mix of corundum and magnetite. The higher amounts of impurities and weaker internal structure than naturally occurring minerals has restricted its growth in new applications.
- Emery is widely used in manufacturing of coated abrasives like emery cloth & emery paper.
- The typical self sharpening action of the emery grains with needle shaped grains and uniform grading make emery grains the first choice for use in this application.

Emery Grains used in

- Flour Mill Stones
- Sandblasting/Abrasive Blasting
- Anti-Skid and Non-wear Flooring
- Traction Enhancement & Rice Polishing
- Deburring and Descaling
- Stainless Steel Polishing



Garnet

- Garnets are Silicate group of minerals. Garnet produced at two mineral separation plants is almandine Garnet $[\text{Fe}_3\text{Al}_2(\text{SiO}_4)_3]$.
- Major grades produced are coarse grade (30-60 mesh), Normal grade (60-100 mesh) and Medium grade (50-100 mesh)
- As abrasive for sandblasting for descaling of vessels and surface preparation.
- In water jet cutting for a precision cutting job.
- As abrasive in grinding wheels, as medium for water filtration & for rough glass polishing

Garnet is used

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Coated Abrasives

A coated abrasive is a product that consists of a thin layer of abrasive grain attached to a substrate such as paper, cloth, etc. Coated abrasives come in a variety of forms such as sheets, discs, rolls, specialties, or belts.

Coated abrasives are manufactured using abrasive grains; the most common are aluminum oxide, zirconium, ceramic, silicon carbide and garnet. The crude grains are crushed and separated into sizes, called grit sizes, using calibrated screens. Grits range from 12 (very coarse) to 1200 (very fine). Once the grains are separated into sizes, they are attached to a backing material using various techniques. Below are descriptions of the most common abrasive grains:

Aluminum Oxide - A tough, blocky shaped, man-made grain used for high speed grinding and finishing of metals, wood, and other high tensile strength materials without excessive fracturing or shedding. Wherever the ability to resist fracturing is the main consideration, aluminum oxide will outperform all other coated abrasive grains.

Zirconium - A very fine, dense, man-made crystalline grain which can be used for aggressive stock removal. Zirconium is a very dense material with a unique self-sharpening characteristic which gives it long life on heavy stock removal operations.

Silicon Carbide - A very hard, very sharp, man-made abrasive suited for non-ferrous materials and non-metallic materials such as concrete, marble and glass. A very friable grain, silicon carbide cuts faster under light pressure than any other grain used in coated abrasives.

Garnet - Garnet is made of natural aluminum oxide which is a relatively sharp, but very weak bonding structure. Very inconsistent when compared to synthetics. It is used primarily in woodworking as garnet dulls too quickly to be used in metal working.

Rolls

- Coated abrasive rolls used for fast and easy sanding of various surfaces, also ensure flexibility and Convenience.
- They can be torn easily.

Length - 50 Mtrs

Width range - 25mm

Grit range - P24 - P600.

Grains - Aluminium oxide, silicon carbide, Zirconia

Backing color - Red, Green, Pink, white, Blue, grey



Flap & Mop Wheels

- They provide comfortable grinding and a good finish by adopting the workpiece.
- They are available in all standard sizes and grits.



Belts

- Abrasive belts are available in Aloxide, Sic, and Zirconia using
- Special Coated Abrasive Grains for various applications. These belts are available from grits 16 to 600 in different forms and sizes.



Fiber & Flap Discs

Our Fiber discs & Flap Discs are available in

- Grains—Aluminium oxide, zirconia.
- Diameters —4",5",&7"
- Grits — 24 to 120

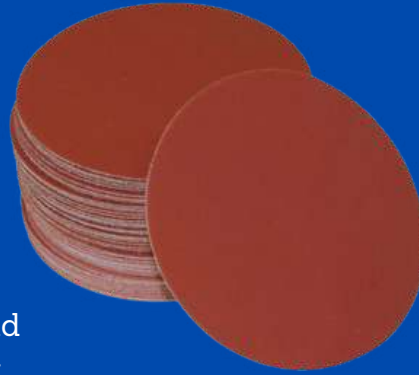
Application —Marble, ceramic and granite finishing, ferrous and non-ferrous casting, wood works, weld blending in stainless steel equipment manufacturing



Cloth Discs

- Cloth disc with or without hole is supplied according to the requirement and are used in both dry or wet sanding.
- Diameter - 4" to 14"

Application - Surface preparation and finishing of metal and wood. Grit size and bond as per the requirement.



Waterproof Sheets

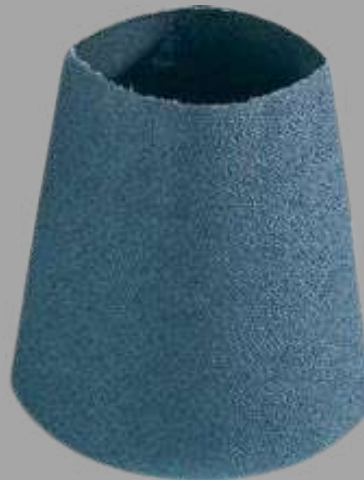
- Waterproof abrasive paper, high quality silicon carbide latex support, very flexible for dry or wet finishing.
- For painted surfaces, bodywork, electronics, precious metals, musical instruments, model making.



Sleeves

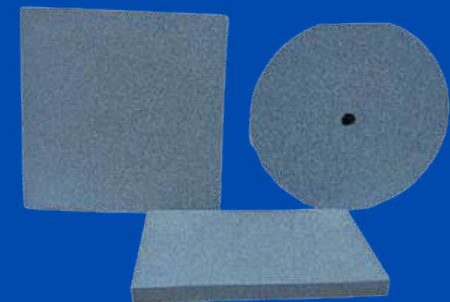
- Sleeves / Conical sleeves used for most accurate control are manufactured with precision.

Application - Welding rod industry, expandable rubber wheel grinding, ID grinding and deburring.



Porous Tiles

- We have developed and taken up the production of Brown Fused Alumina Grains Based Porous Product (Algrain PP) in various shapes and Sizes for the customers in the field of Dyes, Chemicals and Ash handling in thermal power plants etc. These tiles are porous, highly chemical & abrasion resistant along with excellent bend strength.





Scan here and
Reach to us!



Contact Us

LOCATION

349/3C, NH7, Krishnagiri – Hosur Main Road,
Shoolagiri – 635117, Krishnagiri Dt, TN.

PHONE

04344-252566
+91 9600900957

WEBSITE

www.algrain.com

EMAIL

suraj.s@algrain.com