

DuPont™ Coarse Staurolite Sand

DuPont produces their coarse staurolite sand product from their heavy mineral deposits in Starke, Florida. This naturally occurring rounded mineral sand is washed and graded to give a product free from dust, dirt, and ultrafines. The staurolite sand is then magnetically separated from other heavy minerals to produce a highly uniform grade.

Applications

Coarse staurolite should only be selected when a heavy paint film is to be removed or a deeper profile is needed that cannot be obtained with our recommended Starblast® or Starblast® Ultra blasting abrasives.

Similar to other DuPont abrasives, coarse staurolite offers the same product advantages, such as:

- greater blasting visibility due to considerably less dust generation
- lower labor costs through faster, more efficient cleaning
- less material costs due to reusability
- guaranteed to contain <5% free silica, typically <3%
- rounded to subangular grains result in less abrasive embedment
- electrically nonconductive

Physical and Mineral Properties of Coarse Staurolite Abrasive

Typical Screen Analysis

U.S. Sieve No.*	Sieve Opening, μm	Retained on Sieve, %
20	840	<1
30	590	5
40	420	29
50	297	44
70	210	17
PAN	<210	6
Grit #30/60		

*U.S. Sieve Series according to ASTM E-11-70.

Physical Properties

	Range
Bulk Density (loose)	136 lb/ft ³ (2176 kg/m ³)
Specific Gravity	3.60–3.65
Hardness (Mohs)	7.0–7.5

Mineral Composition

	Typical, %*
Staurolite Minerals ($\text{FeAl}_5\text{SiO}_{12}\text{OH}$)	85
Titanium Minerals ($\text{Fe}_2\text{Ti}_2\text{O}_7$)	10
Quartz (Free Silica)	3

*This column gives typical analyses based on historical production performance. DuPont does not make any express or implied warranty that future production will demonstrate or continue to possess these typical properties.



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Personal Safety

DuPont staurolite sand products, as shipped, do not pose any inhalation health hazard, because they contain essentially no particles in the respirable size range. However, if during handling or use, the staurolite sand particles are broken down to a size that can be inhaled, the dust may be harmful to the respiratory system.

DuPont staurolite abrasive products may contain up to 5% crystalline silica (quartz). Long-term overexposure to respirable crystalline silica may cause silicosis. The U.S. Department of Labor (OSHA)* has ruled that an employee's exposure to particulates, not otherwise regulated, should not exceed 5 mg/m³ (respirable dust), 15 mg/m³ (total dust), 8-hr time weighted average (TWA). When these limits might be exceeded, employees should wear dust masks or respirators approved by NIOSH for such dusts.

Packaging

Staurolite sand abrasives are available in 22.7-kg (50-lb) multiwall paper bags, 4,000-lb bulk bags, and in bulk carloads and truckloads. Department of Transportation (DOT) Hazard Classification:* NOT REGULATED.

* Due to changing governmental regulations, such as those in the Department of Transportation, Department of Labor, U.S. Environmental Protection Agency, and the Food and Drug Administration, references herein to governmental requirements may be superseded. Each user should consult and follow the current governmental regulations, such as: Hazards Classifications, Labeling, Food Use Clearances, Worker Exposure Limitations, and Waste Disposal Procedures for the products described in this literature.

DuPont Titanium Technologies

www.titanium.dupont.com

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