

Eco Dust Solution

Chryso have a range of environmentally friendly products that can be used, and the recommended usage of one of these products, the ECO Dust 200 D, is shown below.

Products:

Eco Dust 200 D

Applications:

The following are typical areas where our product can be used:

Open exposed areas
Gravel roads
Farm roads
Gravel airstrips
Quarry roads
Stockpile dumps
Mine dumps

General Application Guidelines

- 1 litre of solution per m² is used to apply the product to the area
- Note that the 100% solution works well for sealing a stockpile or an exposed surface, provided the liquid can mix slightly with the top layer of material and be distributed evenly.
- A 43% solution also works well to seal off a stockpile or open exposed area, but more quantity of solution is needed per area, but the same amount of product. So that concentration should depend on how much water is needed to make the product bind with the surface layer of the stockpile or exposed surface. Runoff of the product during application should be prevented.
- The mixing with the top layer of the surface is required to keep it in place on a sloped surface, and also provides additional stabilisation as the top layer is less likely to slide down.
- The use of the product on a road at any percentage requires the surface to be compacted to achieve the mixing with the top layer. Vehicles travelling regularly will achieve this. The smoother the road the better as this prevent pooling of the solution in parts of the road.
- When vehicles travel on the road, the whole road should be used, to prevent the middle of the road not being compacted and resulting in loose material.
- Planned roadways will enable the product to be used efficiently.
- Walkways should also be clearly demarcated to enable exposed areas to remain undisturbed after the application of the product.



Application Method for Regular Maintenance to decrease road dust significantly.

- Four applications at 15% in one day and one application per day thereafter at 5% solution. Application rate of 1 litre of solution per m².

Long term application. (30 days or more)

- Application of 85% solution at 1 litre per m². This is a once off application and can last up to 90 days.

Factors that will influence the intervals between maintenance applications and life time of the surface:

- Quality of base material
- Climate conditions
- Volumes and type of traffic

A spreadsheet to assist in making up solutions is available for [download here](#).

Technical data sheet

CHRYSO[®] Eco Dust 200D (CPT)

High range dust suppressant.



Description

CHRYSO[®] Eco Dust 200D is an emulsified dust lubrication system that aids in the coalescing, stabilisation and suppression of rising dust particles and spores, preventing them from becoming air-borne.

Advantages

- Easy application and safe to use
- Helps with compliance to safety, environmental, health and occupational regulations
- Safety - Increased road visibility, increased grip
- Creates a dust free environment, complete dust suppression
- Less fuel usage
- Reduced road and vehicle maintenance
- Reduced man hours
- UV resistance
- Cuts down water usage
- Eliminate grading and watering
- Savings compared to traditional paving and tar roads
- VOC free

Application guidelines

Use

- Unpaved roads (gravel, farm, quarry roads)
- Road stabilization (gravel airstrips)
- Mine and industrial dust suppression (stock pile, mine dumps)

Directions

- For surface suppression
 - Apply to the surface by a water/tank truck with a rear mounted distribution bar that spreads the liquid evenly over the surface.

Physical and chemical properties

- Physical state (@25°C): Liquid
- Colour: Brown
- Specific gravity (@25°C): 1.095 (±0.02)
- pH: 5.00 (±0.01)
- Cl ion content: ≤0.01%
- Na₂O equivalent: ≤1%

- CHRYSO[®] Eco Dust 200D: 10 – 15% mixture by volume of water
- Maintenance of 2.5% to 5% mixture, depending on surface condition
- Coverage
 - Coverage depends on the method of application

Maintenance

- Factors that will influence the intervals between maintenance applications and life time of the surface include:
 - Quality of the base material
 - Climate conditions
 - Volumes and type of traffic

Storage

- If in the original sealed packaging at room temperature, CHRYSO[®] Eco Dust 200D has a shelf life of up to 12 months from the date of manufacturing.
- Should the product freeze, it will recover its properties after thawing and agitating.
- Avoid storing CHRYSO[®] Eco Dust 200D in direct sunlight.
- Avoid all contact with water (especially rain water).

Appendix: Example for a 30-day application on a site.

30 Day Plan to Control Dust

The area quoted on is 13000m², broken up into:

1. 1000m² to the east of the road for long-term dust control application. 85% Once off
2. Demarcated area to the north by the berm or other barrier, 2800m². Also, for long term application. 85% once off
3. Regular use application to be applied to the rest of the area, 9200m². Once a day with the first four at 15% solution and the rest at 5% solution

Area to be Controlled m ²	Litre of Product required (Litre)	Cost of Product (Rand)
13000	20710	R 155 325
1000	850	R 6 375
2800	2380	R 17 850
9200	17480	R 131 100