

SECTION 623 DUST CONTROL SURFACE TREATMENT

623.1 Description

- (1) This section describes applying dust control surface treatment to aggregate bases, shoulders, and other drivable surfaces.

623.2 Materials

623.2.1 General

- (1) Furnish either magnesium chloride or calcium chloride in either a liquid or a solid state. Furnish solutions that are stable and have less than 1 percent sediment falling out of solution below 0 F (-18 C).
- (2) Provide a certified report of test or analysis from the manufacturer or supplier certifying chemical composition. The department will accept material based on those certifications as specified in 106.3.3.

623.2.2 Magnesium Chloride

- (1) Furnish liquid solutions containing 30 percent or more magnesium chloride by weight, less than 1 percent calcium chloride by weight, and less than 1 percent sodium chloride by weight.
- (2) Furnish solid containing 47 percent or more magnesium chloride by weight, less than 1 percent calcium chloride by weight, and less than 1 percent sodium chloride by weight.

623.2.3 Calcium Chloride

- (1) Furnish liquid solutions containing 38 percent or more calcium chloride by weight, less than 1 percent magnesium chloride by weight, and less than 1 percent sodium chloride by weight.
- (2) Furnish solid containing 77 percent or more calcium chloride by weight, less than 1 percent magnesium chloride by weight, and less than 1 percent sodium chloride by weight.

623.3 Construction

- (1) The contractor is responsible for dust control on the project as specified in 107.18. Treat vulnerable areas of the project as necessary to control dust from construction equipment and public traffic. Consult with engineer before applying dust control chemical. Apply chemical treatment as the engineer directs.
- (2) Arrange to have available, within 24 hours of receiving notice from the engineer, a sufficient supply of dust control chemical to treat those areas of the project that are vulnerable at any time during construction. Also, provide, within the same 24 hours, sufficient spreading equipment to apply the chemical. Provide spreading equipment capable of applying the dust control chemical, uniformly and without runoff, over the treated surface at the specified application rate.
- (3) After shaping and compacting the surface to be treated, apply a sufficient amount of water to penetrate at least 2 inches (50 mm). After this pre-wetting and while the surface is still moist but not muddy, apply the required amount of chemical uniformly over that surface at the following rate:
 1. For liquids, 0.33 gallons or more/square yard (1.5 L/m²). Do not exceed 0.50 gallons/square yard (2.3 L/m²).
 2. For solids, 1.5 pounds or more/square yard (7.3 kg/m²). Do not exceed 2 pounds/square yard (9.8 kg/m²).
- (4) Do not apply dust control chemical in the rain, when the official weather bureau forecasts rain within 24 hours, or under other conditions that might result in a significant loss of material.

623.4 Measurement

- (1) The department will measure Dust Control Surface Treatment by the square yard acceptably completed. The engineer may calculate the yardage using volume or weight and applying a conversion factor.

623.5 Payment

- (1) The department will pay for measured quantities at the contract unit price under the following bid item:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
623.0200	Dust Control Surface Treatment	SY

- (2) Payment for Dust Control Surface Treatment is full compensation for providing the dust control treatment and pre-wetting water.