



## QUESTIONS ABOUT CUSTOM BLENDS

### WHAT IS A CUSTOM BLEND?

One dust suppressant is not enough. Desert Mountain Corp. is able to combine a variety of dust control products to arrive at the right mix for your dust control situation. Whether the surface to treat has more fines than gravel, or is made up of large-sized gravel with no fines, or somewhere in between, Desert Mountain personnel can help determine what blend is right for you.

### WHAT DOES CUSTOM BLENDING DO?

Custom blended dust control products provide a better solution than one product alone. For instance, calcium chloride and RoadSaver (magnesium chloride) work by drawing moisture from the air to the soil. Lignosulfonate and RoadSaver work by “gluing” road base particles together. Combining these products at the right rate increases their individual strengths and lengthens their staying power.

When you apply a Desert Mountain custom blend to roads and bare soil areas, it immediately goes to work for you in five different ways:

- 1) Providing greater safety by increasing driver visibility and decreasing risks caused by loose gravel, soft spots, road roughness and flying rocks.
- 2) Providing money-saving opportunities in areas ranging from vehicle and road maintenance expenditures (such as blading, watering and gravel replacement) to improving the engineering properties of soil. 1) Providing cleaner air, which leads to better health, better visibility and much cleaner vehicles, property, vegetation and living sites.
- 3) Providing an inexpensive, smooth, firm-driving surface, which increases vehicle productivity, decreases fuel consumption and saves time.
- 4) Providing cleaner air, which leads to better health, better visibility and much cleaner vehicles, property, vegetation and living sites.
- 5) Providing stable soil by preventing destructive wind erosion.

### WHERE SHOULD CUSTOM BLENDS BE USED?

Custom blends work to control dust and stabilize aggregate and dirt surfaces on almost any type of road. For example, they can be used on mine haul, construction site haul and forest/timber haul roads, as well as military, agriculture, industrial and federal project roads. Private and rural roads, parking lot surfaces, industrial and construction staging areas and airfield helicopter pads are also appropriate surfaces for custom blend applications.

Stabilization of road bases and shoulders is another custom blend benefit. Custom blends help in road base stabilization by increasing base strength and reducing compaction costs. On road

shoulders, custom blends will maintain a firm, tight surface increasing shoulder safety and reducing maintenance costs.

### **HOW DO CUSTOM BLENDS WORK?**

By combining products, four stabilizing mechanisms go to work simultaneously:

- 1) Hydroscopicity of magnesium chloride and calcium chloride activates high surface tension strength.
- 2) Particle charge bonding adds strength to the fine ground soil particles.
- 3) Adhesive properties work to bind the soil particles together.
- 4) Chemical composition increases surface compaction, providing the soil particles with greater interlocking strength.

Because of these mechanisms, custom blends are highly effective under most road conditions, in low relative humidity as well as high.

### **HOW SHOULD I PREPARE MY ROAD FOR APPLICATION?**

Before spraying roads for dust control, the road surface preparation is extremely important, but not necessarily difficult or costly. The better the conditions, the more successful the dust control/stabilization application will be.

If the surface is permeable, smooth, firm and shaped for drainage, it's ready for application. In other words, before applying a custom blend, make sure that ruts, washboards, potholes, drainage problems, gravel segregation and hard impervious areas have been rectified. While correct surface preparation need not be difficult, it is very important in the overall success of the dust control treatment.

*BLADING* will take care of problems like ruts, potholes, wash-boarding and gravel segregation and will provide a smooth, well-drained surface. That is not necessary if the surface is already smooth, shaped and evenly mixed.

*COMPACTING* should be performed if blading loosens the surface. Don't forget to water the surface before compacting. This procedure will restore a dense, tight surface.

*PREWATERING* (ideally to a depth of 3 to 4 inches) will break the surface tension and allow maximum penetration before applying Desert Mountain's custom blends. If the surface is too tight for easy water penetration, it should be bladed and re-compacted, creating a firm but easily penetrated surface. For the best results, the surface should be pre-watered several hours before the custom blend application. If an extensive area is to be covered, it can be pre-watered the afternoon or evening before application. But no matter when you pre-water, remember that the surface should be damp at the time of application to extend the life of the application.

### **HOW MUCH SHOULD BE APPLIED?**

In most situations, we recommend applying .5 gallons per square yard, generally applied in two .25 gallons per square yard applications. The second application can be made as soon as the first has penetrated. This procedure will minimize runoff and obtain deep, even penetration. Other

application rates can be used, but the basic rate is best for first time applications and for the longest length of dust control. The basic rate usually provides control and stabilization for two to six months without reapplication.

Reapplication should be made prior to complete utilization of the previous treatment or before excessive dust occurs. This will prevent loss of the fine-grained soil particles and protect the investment in the road surfacing gravel. The amount of residual dust control remaining in the surface often allows a lower rate to be used for reapplication. Desert Mountain can assist in the selection of application rate.

#### **WHAT IF MY ROAD HAS BEEN TREATED BEFORE?**

Roads previously treated with other products such as waste oils or asphalt products can prevent penetration and adherence of custom blended dust control products. Desert Mountain can suggest ways to overcome these problems.

#### **HOW DO I GET THE BEST RESULTS?**

Custom blends perform best when applied to a soil or gravel road surface that is smooth, firm and shaped for drainage. The road should be pre-watered to a depth of 3 to 4 inches creating a surface that is moist but not saturated.

#### **WHAT ABOUT TRAFFIC?**

Traffic will have little effect on the treatment during application, but should be held off if possible, until the dust control has penetrated. If traffic cannot be held up, it should be slowed to around 10 miles per hour to minimize splashing and coating on vehicles.

#### **HOW DO I PLACE AN ORDER?**

Contact your salesperson, or call our main office at 1-800-375-9264. We will put you in touch with the right person and take care of your dust control needs.



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