

DustStop by DepiJet®

DustStop by DepiJet® : Preparation and application guide

In order for **DustStop by DepiJet®** to produce optimum results, it must be applied to surfaces (gravel roads) which have been constructed according to sound civil and structural engineering principles.

These include selecting aggregates with adequate load bearing and other mechanical characteristics. The particle size distribution of the aggregate should typically have a 'fines' content in the region of 15% by weight, for maximum performance. It is also very important that the road surface is designed to the correct slope or camber to ensure effective rainwater drainage.

The nature of the substrate being treated will determine the concentration of the **DustStop by DepiJet®** solution. As a rule of thumb, less permeable aggregates (like clay) require **DustStop by DepiJet®** to be diluted down to at least 10% dry solids, whilst a solution of up to 20% can be applied to more permeable substrates such as sandy soil.

Methods of application:



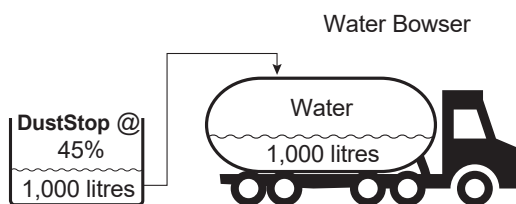
Spray-on - surface treatments involve the spraying of diluted product directly onto the road surface. This is usually done by means of a water bowser (truck). Similarly, hand-held spraying equipment can be used to treat smaller, difficult-to-reach areas.



Mix-in - blending **DustStop by DepiJet®** with the soil or aggregate, during gravel road construction or maintenance, prior to compaction will provide a more permanent or longer-lasting solution compared to surface treatments.

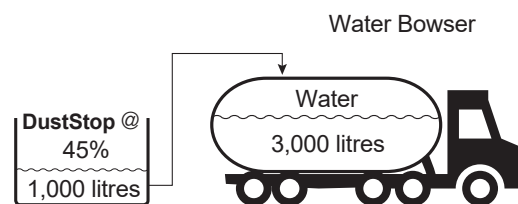
Preparation

DustStop 108 (liquid) has a dry solids content of approximately 45% and can be diluted simply by adding water.



2,000 litres @ ≈ 22% solution

To ensure ease of dilution and, where measurement equipment is not available, a dilution factor of (1 part **DustStop by DepiJet®** : 1 part water) on a volume basis produces a solution of approximately 22% solids.

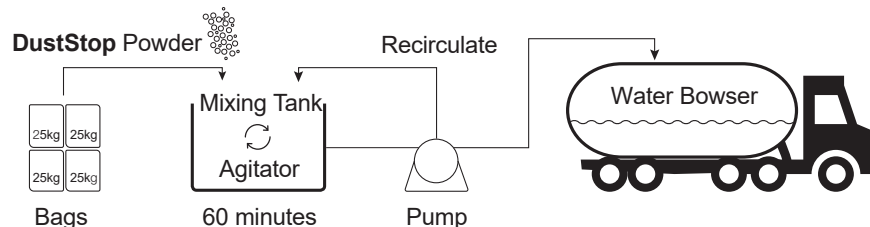


4,000 litres @ ≈ 11% solution

Similarly, (1 part **DustStop by DepiJet®**: 3 parts water) yields a solution of approximately 11%.

DustStop by DepiJet®

DustStop 208 (powder) is dissolved in water using a mixing tank which is equipped with a stirrer or agitator. A recirculation pump can also be used to provide the required agitation. Once the **DustStop by DepiJet®** powder has been dissolved in the water, it must be left to rehydrate for at least 60 minutes before application.



100kg Powder + 900 litres Water → ≈ 10% DustStop by DepiJet® Solution

Application



Step 1

Measure the area to be treated in metres squared (m²).

Step 2

Calculate the total volume of **DustStop by DepiJet®** which will be required in litres.

Spray-on application: 1-2 l/m² x total area calculated = volume in litres.

Mix-in application: 4 l/m² x total area calculated = volume in litres.

Step 3

Prepare required **DustStop by DepiJet®** volume at desired concentration.

Spray-on application

Step 4

Prepare road surface - this could include blading the road and removing large objects such as rocks, etc. to ensure an even surface which facilitates proper drainage of rainwater.

For improved **DustStop by DepiJet®** penetration, it is advised to wet the road surface with a light water spray prior to applying the **DustStop by DepiJet®**.

Step 5

Apply the calculated volume (1-2 l/m²) of the dilute **DustStop by DepiJet®** solution to the area by means of multiple spray passes from the water bowser (truck). Multiple spray passes* will ensure better penetration and will prevent product run-off. Typically, the water truck will cover one pass by moving forward in one direction over the area being treated, and then the second pass is completed by reversing the water truck over the exact same area.

** The **DustStop by DepiJet®** dosage rate is a function of the speed at which the water truck is moving, the width of the spray bar and the size of the nozzles. Should one be unfamiliar with the spray equipment and the rate of dosage, it is advisable to first experiment with a water application before applying the **DustStop by DepiJet®**. This way, the optimum travel speed of the vehicle, which will ensure optimum penetration and even coverage of the product, can be determined. One should also guard against using nozzles which produce a very fine mist, especially in windy conditions. Likewise, very big nozzles which promote flooding and product run-off should also be avoided.*



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Mix-in application

Step 4



Rip the road surface to the desired depth - typically 100-200 mm deep. Break large lumps with the rotovator or grader to ensure an even particle size distribution, which will facilitate better **DustStop by DepiJet®** penetration and compaction.

Step 5



Using the water bowser, apply 75% (3 l/m^2) of the total calculated volume of **DustStop by DepiJet®** to the prepared/ripped substrate in multiple applications, mixing thoroughly with a rotovator, disc plough or grader between applications. Continue until the **DustStop by DepiJet®** is thoroughly mixed into the substrate.

Step 6



Once the **DustStop by DepiJet®** is thoroughly mixed into the substrate and the optimum moisture** for maximum compression density is achieved, shape the road to the desired camber.

*** Care should be taken not to over wet the substrate, as this will prevent optimum compaction. Likewise, should the substrate be too dry after **DustStop by DepiJet®** application, water can be applied until the optimum moisture is achieved.*



Step 7

Compact with pneumatic tyred or smooth drum roller.



Step 8

Finally, apply the remaining 25% (1 l/m^2) of the **DustStop by DepiJet®** solution as a surface spray-on seal coat.

Rejuvenation and maintenance

Climatic conditions, the nature of the road surface and traffic will determine the frequency and dosage of **DustStop by DepiJet®** re-application. The treated area should be monitored regularly and rejuvenated once the first signs of dust are noticed. For rejuvenation, refer to Step 4 under 'Spray-on application'. Alternatively, for road maintenance and repairs, refer to Step 4 under 'Mix-in application'.

Contact details

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