



Where Science  Meets the Earth

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## Typically Applied Product

### Investigation, Design and Specification

#### Step

# 1

Primary works  
Investigation  
Testing

Investigate the pavement for subgrade strength, pavement condition, drainage, shape of road, traffic numbers and load weights.

If the pavement is bone dry or, has a top layer of fine dust, then before application of RDC it will need to be pre-wet until it is just under the Optimum Moisture Content.

Ensure the required minimum metal depth (30/50mm of compacted aggregate) is in place. Top up if necessary and organize to have the pavement graded to shape at 4% camber.



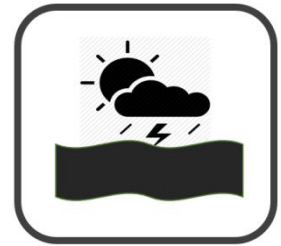
# Pre Works and site conditions

## Step

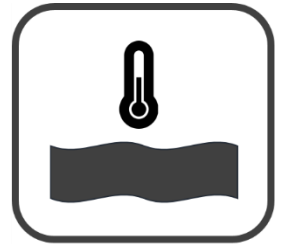
# 2

Pre works for application days

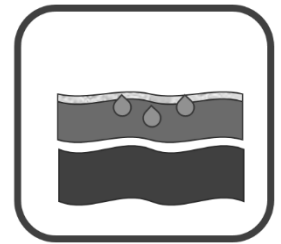
Check weather– no heavy rain forecast within 2 days (24 hours) of the application of the product to give the product time to cure into the pavement.



Do not carry out application if the temperature is less than 10 degrees C or will drop below within 24 hours of application



**The pavement should not be bone dry before application of RDC, if so, run over it in multiple passes with water until it is just under the Optimum Moisture Content.**



The optimum water content (OWC) of the stabilised materials shall be determined by NZS 4402, test 4.1.3, *New Zealand vibrating hammer compaction test*.

## Equipment required:

Water Cart, Portable pump (a vehicle capable of delivering a uniform spray to the surface)



## Step

# 3

Application

Ensure that the road is shaped correctly, with a 4% camber, and has adequate aggregate. RDC cannot be applied directly to clay as it will become slippery



The product arrives in either 1000ltr ICB totes or by bulk tanker. Pump liquid into water cart.

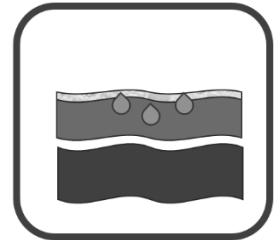


**Pre wet pavement with water if necessary.**

Complete test area spraying to calibrate the flow and speed of vehicle to get the specified amount of product onto the pavement.



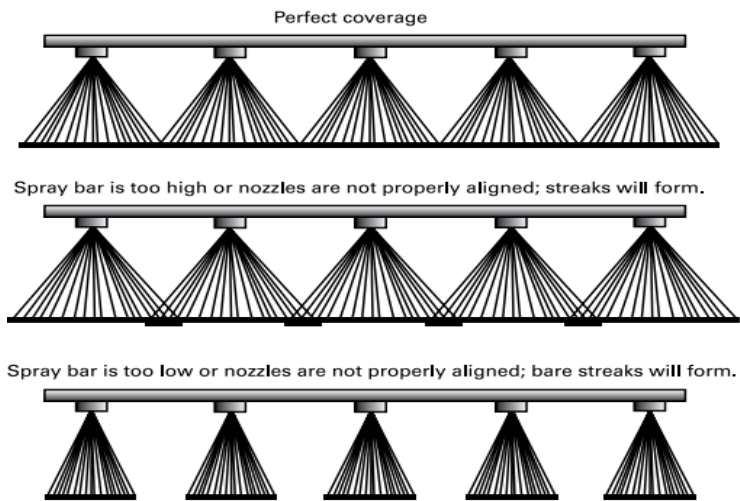
Apply RDC at 2ltrs per sqm, ensuring uniform coverage of all material to be treated and avoiding run off by allowing the product to soak in and apply in multiple applications.



**Notes**

Wash equipment thoroughly flushing all hoses and pumps multiple times

When spraying RDC avoid spraying on clay, chipseal or hard surfaces like concrete or any other impermeable surface as they may become slippery.



<p>Check aggregate depth is sufficient (30/50mm compacted) and if required overlay aggregate.</p>	<p>Grade to shape, 4% camber, if required</p>	<p><b>If pavement is bone dry, pre wet road with water with multiple passes until just under the OMC.</b></p>
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<p>Fill water truck with RDC.</p>	<p>Applicate product from Water Cart at 2ltrs per sqm.</p>	<p>Roll and compact if client wants this service (not necessary but does give longevity to the product).</p>
		

# Glossary

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<b>Applicate</b>	To apply the product to the ground.
<b>Decanting</b>	To remove liquid from one container to another.
<b>Equipment</b>	What machinery you will need to applicate products correctly
<b>Fines</b>	Small particles of less than 5mm.
<b>IBC Totes</b>	Intermediate bulk container. A reusable industrial container. Designed for the transport and storage of bulk liquids.
<b>Insitu</b>	Existing material
<b>Loose Material</b>	Unbound stones or asphalt.
<b>Methodology</b>	Written instructions.
<b>OWC or OMC</b> <b>Optimum Water Content</b>	Optimum Water Content. Adding water to the Material so that it becomes self-compacting. OMC of the Material shall be determined by NZS 4402 test 4.1.3 NZ vibrating hammer compaction test.
<b>Portable Pump</b>	A pump with sufficient capacity to transfer 1700UPM viscosity fluid (very thick liquid – FCM).
<b>Pothole</b>	Surface deterioration of the pavement that holds water causing further deterioration.
<b>Pre-Grade</b>	Shape the road, removing corrugations and potholes.
<b>RDC</b>	Road Dust Control
<b>Slurry/Slurrying</b>	To create a paste out of the fine particles of the material being treated to the point where it is free flowing.
<b>Specified Depth</b>	The depth measured in cm or mm of the stabilized, treated pavement.
<b>Sufficient Liquid</b>	To bring the material up to the optimum water content.
<b>Traffic Control</b>	Road traffic management.
<b>Untreated Material</b>	Material without any product in it.
<b>Viscosity</b>	Measurement of fluid thickness and flow rate.
<b>Weather Forecast</b>	A guide to determine upcoming weather in your region

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