



Mamz ChipSeal CRS2®



Eco-friendly bitumen emulsion for chip sealing (SST, DST, TST)

Mamz ChipSealCRS2® is an eco-friendly high performance chip sealing bitumen emulsion, specifically formulated by Mamz Asphalt Technologies for surface treatments like SST, DST, TST. It gives superior performance over a wide range of sealing conditions and aggregate types.

Mamz ChipSeal CRS2® is a high viscosity rapid setting type, allows faster removal of traffic control. Being a cationic type, it performs well in cool and damp conditions and bonds well to most aggregates. The high bitumen content allows application at higher rates required by larger aggregate seals with reduced risk of run-off on steep grades or cross-falls.

Why use Mamz ChipSeal CRS2®?

Mamz ChipSeal CRS2® has unique attributes of antistripping giving it a higher competitive edge over traditional cut backs or emulsions. It coats the aggregate in such a way that water absorption is minimized and the capillaries are tightly plugged.

The superior bond of **Mamz ChipSeal CRS2®** holds the surface treatment chips strongly at place. Its optimum higher viscosity helps in dipping the aggregate to standard depth and proper coating.

Because in chipsealing aggregate chips require 40% initial embedment during construction, the high viscosity emulsion like **Mamz ChipSeal CRS2®** is always used to avoid emulsion flow off from the substrate.

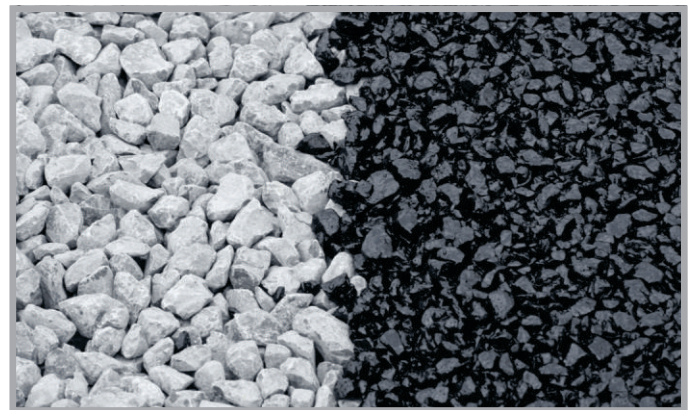
Emulsified bitumens are gradually becoming the main binder of choice for chip sealing (SST, DST, TST) all over the world. The change from cut back is being driven by both safety concern and energy & emission reduction. Use of less energy for spraying makes it cost effective too.

Standard compliance

- ASTM D140 Practice for Sampling Bitumen
- ASTM D244 Test Methods for Emulsified Asphalts
- ASTM D977 Specification for Emulsified Asphalt
- ASTM D2397, AASHTO M-140

Properties

Appearance	:	Brown Liquid
Residue	:	66% + 3%
Saybolt Furol Viscosity	:	Min 75 sec@25°C
Particle Size	:	3 - 6 Microns
Settlement 5 days	:	< 3%
Setting Time at 30°C	:	Rapid Set
Initial set	:	1 -2 hrs
Final set	:	2 -4 hrs
Grades Available (Anionic/Cationic)	:	CRS2
Coverage	:	Annexed Table



Mamz Asphalt Technologies (Pvt.) Ltd.

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How to apply Mamz ChipSeal CRS2®?

Mamz ChipSeal CRS2® can be applied in some situations without any special preparation. Surface must be well compacted and prepared as per standard specification. Apply Mamz Prime Coat® to prepared surfaces and allow to cure prior to the application of **Mamz ChipSeal CRS2®**.

Application	Layers	Rate of Application
SST	1	1.63 Kg/m ²
DST	2	2.14 Kg/m ² 1 st Layer 1.63 Kg/m ² 2 nd Layer
TST	3	2.14 Kg/m ² 1 st Layer 1.63 Kg/m ² 2 nd Layer 0.68 Kg/m ² 3 rd Layer

Cold weather benefit of Mamz ChipSeal CRS2®:

In cold weather or damp conditions, hot bitumen cools quickly when sprayed (increasing its viscosity). Consequently, its ability to wet the stone surface effectively is impaired, resulting in incomplete bonding which leaves the seal vulnerable to damage by traffic. Using cutters assists this process, but these are sometimes trapped in the seal for an extended period contributing to flushing and bleeding in the warmer months.

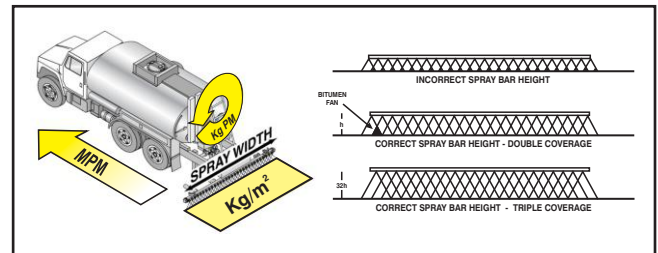
Mamz ChipSeal CRS2® is a high content (resists run-off), cationic bituminous emulsion with chemical additives designed to perform well under these conditions as well as to resist run-off at high application.



Mamz ChipSeal CRS2® consists of small bitumen droplets stabilized with chemicals that are dispersed in water allowing the bitumen to uniformly coat the aggregate even under cold conditions, Its strong hydrophilic properties displace the water from the aggregate, creating a strong bond with the stone during the breaking process.

What is a good spraying practice?

The correct application of **Mamz ChipSeal CRS2®** depends on four variables. They are the desired application rate, in fractions of Kilograms or liters per square meter; the forward ground speed, in meter per minute; the asphalt pump output, in Kgs or liters per minute; and the width of the spray in meters. The onboard metering system gives the operator precise control of the application of asphalt, with either manual or computer control. Nozzle alignment is an important part of the process; get all nozzles at the same angle. If not, a non-uniform spray pattern will result.



Try to achieve a triple overlap. A double overlap can work too, but triple is the most common and a little more forgiving. A triple overlap ensures uniform placement of material, and that's what we want.

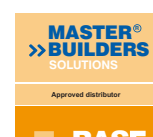
How Mamz ChipSeal CRS2® is supplied & stored?

Mamz ChipSeal CRS2® is supplied in ready to use 218 Kg gross steel drums. However bulk arrangements may also be done according to client demand and need.

Mamz ChipSeal CRS2® has a storage life of 12 month in unopened condition. It must of stored with in a temperature range of 5°C to 50°C.



Roofline Group of Companies



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