



Enviroplus Seal

Helps to resolve these problems:



CRACKING



WATER PROOFING



CHIP LOSS

Enviroplus Seal Polymer Modified Emulsion for use as a superior chipsealing binder

Enviroplus Seal is a 72% binder content polymer modified chipsealing emulsion for use in all chipsealing applications where a high level of performance is required.

Enviroplus Seal uses 130/150 grade bitumen as the base binder.

The presence of polymer greatly enhances the performance of the binder, making it suitable in all chipsealing techniques.

Where to use Enviroplus Seal:

A bituminous binder for all chipsealing techniques, especially in areas of extreme climatic conditions.

Where there is evidence of cracking in the original surface or on pavements which exhibit high deflections.

Enviroplus Seal is delivered at an application temperature of 75°C in ready to use form.

Enviroplus Seal provides the safest and most successful method by which to deliver chipsealing bitumen, with a greatly reduced risk of hot bitumen burns or risk of ignition.

Benefits:

Benefits Enviroplus Seal:

Enviroplus Seal offers the best way of delivering a polymer modified binder to the road surface with the following improved features:

Safer application temperature compared with hot bitumen delivered product

Lower fuming and emissions to atmosphere

Excellent chip adhesion

An ability to extend the season during which polymer modified binders can be successfully applied.

Enviroplus Seal provides the most practical and safe method by which to apply a polymer modified binder in a chipseal application.

Enviroplus Seal can be used for all sealing techniques including; two coat seals, rack-in seals, single coat seals, sandwich seals and first coat seals.

Habitat



Residential



Rural

Specification

Typical properties of Enviroplus Seal Polymer Modified Emulsion

Property	Method	Specification
Binder Residue (%)	In-house method	>72%
Viscosity @ 70°C (CPS)	In-house method	500 - 2000
Softening Point (°C) of cured binder	ASTM D36-2006	> 45

Health & Safety

Enviroplus Seal Polymer Modified Emulsion is handled at elevated temperatures (~80°C) and all precautions should be taken to prevent burns. Full personal protective equipment must be used at all times when pumping, transferring or sampling PME. Burns should be treated in the same way as hot bitumen burns. The Roothing NZ Bitumen Burns card should be consulted and the instructions followed. e.g. cooling water should be immediately applied but no attempt should be made to remove bitumen from the burn area.

Any contact on the skin (other than burns) should be washed off immediately with appropriate hand cleaners, do not use solvents.

A safety data sheet for RS1 Enviroplus Seal is freely available on the Road Science website and must be read and understood prior to handling the RS1 Enviroplus Seal Polymer Modified Emulsion binder.

Properties:



COLD



REDUCED EMISSIONS

Handling & Mixing Information

Enviroplus Seal Polymer Modified Emulsion

Maximum safe handling temperature 90°C

The Enviroplus Seal Polymer Modified Emulsion should be circulated for at least 10 min prior to commencing spraying.

Normal Spray Temperature 70°C - 90°C

Normal Pumping Bitumen Emulsion Temperature >60°C

Enviroplus Seal Polymer Modified Emulsion is a water based system and as such care should be taken with regard to risks associated with rain and runoff. Normal environmental control precautions for the use of emulsions should be taken.

Storage Information

Enviroplus Seal Polymer Modified Emulsion

Short Term Storage Temperature (2 days) 75°C

Medium Term Storage Temperature (up to 5 days) 20 - 50°C

Long term storage temperature (beyond 5 days) 20 - 40°C

Critical: Long Term Storage

If there is a need to postpone spraying beyond 5 days, storage temperatures should be dropped immediately to <40°C.

Gentle stirring /circulation is required to prevent long term settling of the bitumen phase.

Never allow Enviroplus Seal to freeze, as the emulsion will break.

Critical: Rate of heating

Reheating needs to be undertaken slowly with the rate of heating not exceeding 10°C per hour.

Gentle circulation is required during heating.

Never heat beyond 90°C.

Sampling

Samples should be taken following transfer from storage or transport.

PPE as defined in the Material Safety Data Sheet should be worn when sampling RS1 Enviroplus Seal Polymer Modified Emulsion including face shield as the product is transferred at slightly elevated temperatures and splashes are always a risk.

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