Surfix® 70X
A premium, high performance polymer modified bituminous emulsion

Surfix® 70X emulsion is a class leading, high solids content polymer modified emulsion formulation, designed for exceptional performance in sealing applications under a variety of conditions. Surfix® 70X emulsion provides all the safety and environmental benefits normally associated with the use and handling of bituminous emulsions, whilst providing far superior performance characteristics.

What is Surfix® 70X emulsion?
Emulsion seals are utilised to provide a new wearing surface and significantly extend the life of an existing pavement. Developed in response to the limitations of using cutback bitumen for sealing during undesirable weather conditions, Surfix® 70X emulsion increases the seasonal window where bitumen seal applications can be used. Cutback bitumen involves the utilisation of solvents to decrease its viscosity. Surfix® 70X emulsion eliminates the need for this, which greatly reduces overall energy consumption and the emission of carbon dioxide and volatile organic compounds that are associated with the use of cutback bitumen.

Surfix® 70X emulsion was formulated to reduce the risk of both crack reflection in the pavement, as well as aggregate stripping from the surface. It also reduces the likelihood of water penetrating through the underlying pavement structure, acting as an additional waterproofing layer.
What sets Surfix® 70X emulsion apart?

Surfix® 70X emulsion is a polymer modified bituminous emulsion seal with greater than 70% binder content, developed and tested by Fulton Hogan, against a range of industry leading alternatives.

When compared to other standard sealing emulsions such as CRS 170, Surfix® 70X emulsion exhibits:

- Much improved binder/aggregate adhesion, particularly in cold weather
- Excellent hot weather performance
- High resistance to flushing under increased traffic loading
- High resistance to low temperature cracking
- Excellent compatibility over a wide range of aggregates
- Reduced run off at elevated application rates

Surfix® 70X emulsion exhibits excellent stone adhesion and torsional recovery.

Recommended applications?

All Surfix® 70X emulsions are able to be sprayed under cool conditions, in temperature ranges that would otherwise prohibit the use of hot bitumen sealing. This benefit alone allows for an extension to the traditional sealing season, giving asset managers greater flexibility in their work programs. Surfix® 70X emulsions are suitable for use in the following applications:

- Sealing of heavily trafficked areas, where extra binder toughness is required to resist stone displacement
- Two coat gravel seals for new surfaces
- Cool weather sealing where the performance of hot bitumen sealing is compromised
- Strain Alleviating Membranes (SAM) or as Strain Alleviating Membrane Interlayers (SAMI) to address reflective cracking

How does Surfix® 70X emulsion work?

The high performance Surfix® 70X emulsion formulation includes special polymer additives to enhance its properties providing excellent resistance to reflective cracking and increasing overall performance in tough conditions. These polymers also work to increase the adhesion between the seal and aggregate surface, by increasing elasticity and firmness.

Surfix® 70X emulsion is an emulsion created by the dispersion of bitumen in water, which reduces the need for cutter to decrease viscosity. An emulsifying agent is used to aid dispersion, which allows water to be displaced from the surface during destabilisation creating a seal. By doing this it enables Surfix® 70X emulsion to be utilised in a wider range of conditions, especially cooler temperatures. It also creates additional environmental benefits resulting from the reduction of volatile hydrocarbons (potential pollutants).

Surfix® 70X emulsion is arguably one of the toughest, best performing emulsions on the market, exhibiting higher levels of stone adhesion and torsional recovery than many competitor products.

Application of Surfix® 70X to an existing pavement.

How to apply Surfix® 70X emulsion?

Surfix® 70X emulsion should be applied at a temperature in the range of 75-90°C using conventional bitumen emulsion spray sealing equipment to achieve satisfactory emulsion distribution and coverage.

<table>
<thead>
<tr>
<th>Size of Aggregate</th>
<th>Rate of Spread of Aggregate</th>
<th>Application Rate for Emulsion (hot)</th>
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</thead>
<tbody>
<tr>
<td>7mm</td>
<td>140 – 150m²/m³</td>
<td>14 – 18 l/m²</td>
</tr>
<tr>
<td>10mm</td>
<td>125 – 145m²/m³</td>
<td>17 – 21 l/m²</td>
</tr>
</tbody>
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Class leading Surfix® emulsions are available from all Fulton Hogan emulsions plants across Australia. Our advanced processes ensure consistency, quality and performance for your next project.

Note: Surfix® 70X emulsion must not be mixed with anionic emulsions such as ARS or ASS types due to chemical incompatibility. Care is also required in returning reheated product to existing storage.