Nanotac is an organosilane additive to Cationic Bitumen Emulsion (CBE) for tack coat application. It improves the flow and spray quality of emulsion. It can also make the tack coat waterproof. Tack coat with Nanotac sets in 15 to 30 minutes with substantially reduced tracking. Nanotac also substantially improves the bond strength, even at lower residual bitumen.

**Benefits**
- Chemical Bonding
- Higher Bond Strength
- Waterproofing
- Finer Spray leading to Improved Coverage
- Uniform Load Transfer due to 100% Coverage
- Reduced Slippage
- Quick Setting
- Nozzle Clogging Eliminated
- Reduce Tracking
- Zero Volatile Emissions

**Higher Performance with Lower Residual Bitumen**

**Nozzle Clogging Eliminated**

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>PARAMETER</th>
<th>WITH NANOTAC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-3 hours</td>
<td>Heating time to get 40 - 50 °C</td>
<td>Reduced</td>
</tr>
<tr>
<td>Poor</td>
<td>Stability of Emulsion</td>
<td>Improved</td>
</tr>
<tr>
<td>Clogged</td>
<td>Nozzles</td>
<td>Clean</td>
</tr>
<tr>
<td>Streaky</td>
<td>Spray</td>
<td>Uniform</td>
</tr>
</tbody>
</table>

**Higher Bond Strength**

- Maintains bond strength with lower residual bitumen content even as low as 10%.
- Bond strength value consistently above 150 PSI (Spec 100 PSI)

**Finer Droplet Size & Quicker Absorption**

<table>
<thead>
<tr>
<th>NEW SURFACE</th>
<th>MILLED SURFACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bond strength (PSI)</td>
<td>Bond strength (PSI)</td>
</tr>
<tr>
<td>0.303</td>
<td>0.602</td>
</tr>
</tbody>
</table>

- Control - Residual bitumen 30%
- With Nanotac - Residual bitumen 10%
Quick setting, Low Tracking Tack Coat

**TACK COAT WITH LESS TRACKING**

No bitumen sticks to Shoes / Tissue

Mexico

Sweden

**100% COVERAGE**

New Surface, Sweden

Milled Surface, Sweden

**MIXING & DOSAGE**

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Nanotac + Water + Cationic Bitumen Emulsion = Diluted Emulsion + NT for Tack Coat
1.4 Parts + 200 Parts + 100 Parts = 301.4 Total
NT = Nanotac
```

- Spray rate of diluted emulsion + Nanotac should be as follows:
  1) For new / old surface: 0.35 - 0.40 kg per sqm
  2) For milled surface: 0.45 - 0.55 kg per sqm (depending upon quality of milled surface)

- Mixing of Nanotac and water; and this solution with Bitumen Emulsion, must be done under circulation

**MIXING PROCESS**

- Add a combination of Nanotac mixed with water (TDS < 1000 ppm) into the sprayer truck
- Fill the sprayer truck with Cationic Bitumen Emulsion and circulate it thoroughly. The mix is now ready for spraying.
- Recirculate the mix every 3-4 hours, use the emulsion mix on the same day and preferably empty the tanker.

**STORAGE & SHELF LIFE**

Store Nanotac between 5 to 45 ºC (41 – 113 ºF) in a shaded, dry area away from sunlight, heat, source of sparks, rain and standing water. Fasten the container lid securely after every use. Its shelf life is 48 months.

**DISCLAIMER**

Whilst the information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

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