NOVAGRIP™ 1016
Next-Generation Asphalt Mix Performance-Improving Additive

WORKER-FRIENDLY LIQUID ANTI-STRIP CHEMISTRY FOR ALL ASPHALTS

NovaGrip 1016 is a next-generation, worker-friendly liquid anti-strip that extends pavement life by creating powerful chemical adhesion of asphalt to aggregate, protecting them from moisture damage and resultant pavement distresses such as raveling, pothole development and rutting. It is the safest additive option available to industry, composed of non-hazardous chemistry and classified non-regulated for transport. NovaGrip 1016 is added directly to asphalt and is compatible with all asphalt types. NovaGrip 1016 is used to design mixes that conform to typical specifications, including AASHTO T283: Method of Test for Resistance of Compacted Bituminous Mixture to Moisture Induced Damage, AASHTO T324: Method of Test for Hamburg Wheel-Track Testing of Compacted Hot Mix Asphalt (HMA), and AASHTO R35: Standard Practice for Superpave Volumetric Design.

APPLICATIONS

Asphalt Paving

FEATURES

THE SAFEST ADDITIVE FOR WORKER EXPOSURE
Composed entirely of non-hazardous chemistry and classified non-regulated for transport, making it safe for workers and better for the environment

NO ODOR AND NO SMOKE
Worker-friendly for improved comfort of plant and paving crew personnel

WORKS WITH ALL ASPHALT MODIFIERS
Does not affect performance grade of polyphosphoric acid (PPA) modified asphalt

PASSES TENSILE STRENGTH RATIO (TSR) AND HAMBURG WHEEL TESTS
Promotes better coating and chemical adhesion of asphalt to aggregate for moisture damage protection

BETTER MIX WORKABILITY
Enables easier hand-work

HEAT STABILITY
Remains effective several weeks to months in hot asphalt

COMPATIBILITY

ASPHALT
Compatible with all asphalt types including those modified with polyphosphoric acid (PPA), styrene-butadiene-styrene (SBS), styrene-butadiene rubber (SBR), ethylene-vinyl acetate (EVA) polymers and ground tire rubber (GTR)

AGGREGATES
Compatible with various aggregate types including granite, diabase, diorite, basalt, chert, limestone, dolomite, marble, sandstone, natural sand, slag and recycled asphalt pavement (RAP)

USE NOVAGRIP 1016 WHEN YOU NEED:
• The safest and most worker-friendly additive option available
• To eliminate smoke and odor at the terminal, mix plant or jobsite
• An additive that works with PPA
**USAGE RECOMMENDATIONS**

**NEAT AND MODIFIED ASPHALTS:**
- 0.25 – 0.75% by weight of total asphalt in mix
- Usage rate should be determined by user based on degree of aggregate coating and moisture sensitivity testing at desired production temperature

**OPTIONS FOR ADDING NOVAGRIP 1016 TO ASPHALT:**
1. Add to asphalt storage tank and agitate mechanically or through pump circulation
2. Add at asphalt terminal by injecting into asphalt line as transport tanker is being charged
3. Add at asphalt mix plant by in-line injecting into the asphalt line (continuous plant) or weigh hopper (batch plant)

**PHYSICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance, 77 °F (25 °C)</td>
<td>Yellow</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Density, 77 °F (25 °C)</td>
<td>8.41 lb/gal (1.00 kg/L)</td>
</tr>
<tr>
<td>Viscosity, 77 °F (25 °C)</td>
<td>2,200 cP</td>
</tr>
<tr>
<td>TSCA Inventory</td>
<td>Listed</td>
</tr>
<tr>
<td>DSL Inventory</td>
<td>Listed</td>
</tr>
<tr>
<td>REACH</td>
<td>Compliant</td>
</tr>
<tr>
<td>C.A.S. Number</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>

The density and viscosity data reported are typical and not specifications. Typical ranges for density and viscosity values are ± 2% and ± 20%.

**HANDLING AND STORAGE**

Always handle NovaGrip 1016 in accordance with Safety Data Sheet (SDS) and Road Science Asphalt Additives Handling and Storage Guidelines document. Avoid product contamination with other materials. Do not store product in excess of 140 °F (60 °C) for prolonged periods. Recommended product handling temperature range is 100 – 140 °F (38 – 60 °C).

**AVAILABILITY**

NovaGrip 1016 is available for shipment in bulk by rail car and tank truck. Packaged quantities are available in 275 gal/1,000 L IBC totes (2,200 lb/997.7 kg net weight) and 55 gal/208 L plastic drums (440 lb/199.5 kg net weight).

**TECHNICAL SUPPORT**

To request additional product information, contact your regional Road Science representative. You can also contact us at 918-960-3800 or customerservice@roadscience.net, or visit our website at www.roadscience.net.