



NOVAGRIP™ 1212

Next-Generation Asphalt Mix Performance-Improving Additive

TECHNICAL DATA SHEET

WORKER-FRIENDLY LIQUID ANTI-STRIP CHEMISTRY FOR ALL ASPHALTS

NovaGrip 1212 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 engineered for ultimate robustness and effectiveness, even with the most challenging asphalt and aggregate combinations. NovaGrip 1212 is added directly to asphalt and is compatible with all asphalt modifiers. NovaGrip 1212 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

USE NOVAGRIP 1212 WHEN YOU NEED:

- To eliminate smoke and odor at the terminal, mix plant or jobsite
- Passing TSR and Hamburg results even with challenging asphalt and aggregate combinations
- An additive that works with PPA
- An additive that pumps easily at cool temperatures

FEATURES

NO ODOR AND NO SMOKE

Worker-friendly for improved comfort of plant and paving crew personnel

MOST POWERFUL ANTI-STRIPPING EFFECTIVENESS AVAILABLE

Passes tensile strength ratio (TSR) and Hamburg wheel tests even with the most difficult asphalt and aggregate combinations

WORKS WITH ALL ASPHALT MODIFIERS

Does not affect performance grade of polyphosphoric acid (PPA) modified asphalt

BETTER MIX WORKABILITY

Enables easier hand-work

HEAT STABILITY

Remains effective several weeks to months in hot asphalt

NO HEATED STORAGE REQUIRED

Easy to handle and pump in cool temperatures

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)

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

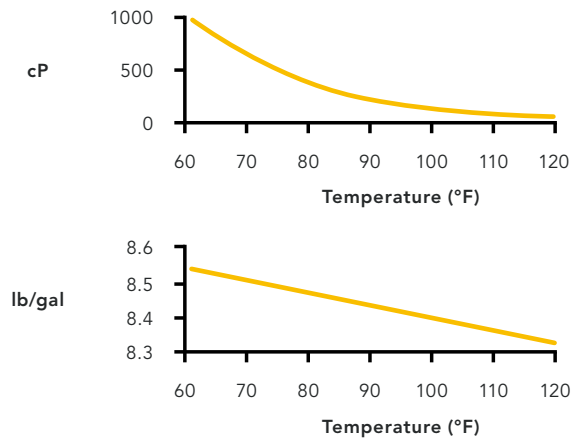
OPTIONS FOR ADDING NOVAGRIP 1212 TO ASPHALT:

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

Property:	Description:
Appearance, 77 °F (25 °C)	Brown
Odor	Mild
Density, 77 °F (25 °C)	8.47 lb/gal (1.01 kg/L)
Viscosity, 77 °F (25 °C)	350 cP
TSCA Inventory	Listed
DSL Inventory	Listed
REACH	Compliant
C.A.S. Number	Proprietary

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



HANDLING AND STORAGE

Always handle NovaGrip 1212 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 120 °F (50 °C) for prolonged periods. Recommended product handling temperature range is 70 – 120 °F (21 – 38 °C).

AVAILABILITY

NovaGrip 1212 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**.

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