

TECHNICAL DATA SHEET

WARMGRIP® ULTRA P

WARM MIX ADDITIVE FOR SAND AND GRAVEL AGGREGATES

WarmGrip® ULTRA P is an asphalt additive that allows for easier field compaction and stronger adhesion of the asphalt binder to aggregate. It safeguards pavements against destructive forces such as traffic loading, water intrusion and oxidation, leading to reduced pothole formation, cracking and rutting for safer, smoother and longer-lasting roads. WarmGrip® ULTRA P chemistry is specifically formulated for the challenging natural sand and gravel aggregates of the United States.

ARKEMA

Applications

- Hot mix Asphalt additives
- · Warm mix Asphalt additives

FEATURES & BENEFITS

- Promotes Better Adhesion to Natural Sands and Gravels: Formulated specifically for the challenging surface chemistry of natural sand and gravel aggregates in the U.S.
- · Reliable Anti-stripping Effectiveness: Passes tensile strength ratio (TSR) and Hamburg Wheel-Track tests
- Improves Field Compaction: Enables increased mat density with fewer roller passes, even with high recycled asphalt pavement (RAP) mixes
- Enhances Mix Workability: Enables easier hand-work in paving applications
- · Heat Stability: Remains effective several weeks in hot asphalt

COMPATIBILITY

- Asphalts: Compatible with most asphalts including those modified with styrene-butadienestyrene (SBS), styrene-butadiene rubber (SBR), ethylene-vinyl acetate (EVA) polymers, ground tire rubber (GTR) and recycled asphalt shingles (RAS).
- Aggregates: Compatible with various aggregate types including granite, diabase, diorite, basalt, gabbro, rhyolite, andesite, dacite, chert, quartzite, gneiss, limestone, dolomite, marble, sandstone, natural sand and gravel, 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.

Used to design mixes that conform to common industry 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.



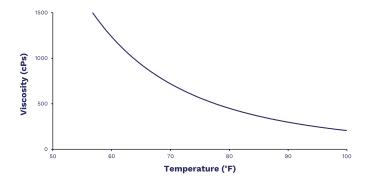
WARMGRIP® ULTRA P

TYPICAL PHYSICAL CHARACTERISTICS*

PROPERTY	VALUE	
Appearance	Dark liquid	
Odor	Strong Ammoniacal	
Density (25°C/77°F)	0.96 g/cm³ (7.63 lbs/gal)	
Viscosity (25°C/77°F)	500 cP	
CAS Number	Proprietary	
TSCA Inventory	Listed	

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

PHYSICAL PROPERTIES



STORAGE AND HANDLING

Always handle WarmGrip® ULTRA P in accordance with the Safety Data Sheet (SDS) and Arkema Asphalt Additives Handling and Storage Guidelines document. Avoid product contamination with other materials. Recommended product handling temperature range is 100–140°F (38–60°C). Product has paste consistency and cannot be pumped below approximately 70°F (21°C).

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