

# ArrTekk® TA

## Emulsion Performance Improving Additive

Chemistry for Improving Long-Term Emulsion Settlement Stability

ArrTekk TA is a fine powder additive that is added to the emulsifier soap solution during asphalt emulsion production to drastically improve emulsion long-term storage stability and easily achieve compliance with settlement stability requirements of typical specifications, including AASHTO M-140 and M-208/ASTM D-977 and D-2397. When used in latex-modified emulsion formulations, ArrTekk TA prevents latex separation during long-term emulsion storage.

**Applications:** Anionic Emulsion      Cationic Emulsion

### Features and Benefits

#### Up to 2,000+% Better Emulsion Settlement Stability

Inhibits asphalt particle settlement over extended storage periods and lengthens emulsion shelf life

Easily reduce 24-hour settlement values of 10+% to 0.5% or less

#### Prevents Latex Separation in Emulsion

Enables easy compliance with specifications prohibiting any appearance of latex in the emulsion or at the top of the settlement cylinder

Keeps latex homogeneously dispersed throughout emulsion over extended storage periods

#### Stable Emulsion Viscosity

Will not affect emulsion viscosity

#### Maintains Emulsion Breaking and Curing Characteristics

Will not affect emulsion performance in mixes or how emulsion breaks, dries and cures

#### Use ArrTekk TA When You Need:

- Significant reduction of settlement during emulsion storage
- Elimination of 'milky' appearance at the top of settlement cylinder due to latex separation

### Compatibility

#### Asphalt Emulsion

Compatible with all grades of anionic and cationic emulsion

#### Emulsifiers

Compatible with ArrMuls® and ArrTekk® emulsifier chemistry

#### Polymer Modifiers

Compatible with styrene-butadiene-styrene (SBS) modified asphalt base, natural, acrylic and styrene-butadiene rubber (SBR) latexes

#### Compounding Additives

Compatible with most clays, fibers, fillers, pigments and other compounding agents

#### Aggregates

Compatible with aggregates of various types, including granite, diabase, basalt, chert, limestone, slag and silica sand

### Usage Recommendations

#### Typical Emulsion Formulation:

	ArrTekk TA, % bwe	Emulsifier, % bwe	Soap Solution pH	Total Residue, %
Anionic Slow-Set (SS) Emulsion	0.015 - 0.025%	ArrMuls 1315, 1.30%	As-is or up to 11.5	60 - 62
Cationic Slow-Set (CSS) Emulsion	0.015 - 0.025%	ArrTekk 860, 1.80%	2.0 - 2.5	60 - 62

#### Emulsifier Soap Solution Preparation Recommendations:

Bring water to temperature of 110-140°F (43-60°C) inside vessel or mixing tank. Begin to vigorously agitate water. Introduce ArrTekk TA slowly to the water near the vortex of agitation. Agitate for at least 15 minutes and until the ArrTekk TA is dissolved in water. Continue agitation and introduce emulsifier to vessel. Adjust to desired final soap solution pH.

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### Availability

ArrTekk TA is packaged in multi-walled plastic lined bags (50 lb/22.7 kg net weight) and available for shipment in half pallet (1,000 lb/453.6 kg net weight, 1,100 lb/499.0 kg gross weight) and full pallet quantities (2,000 lb/907.2 kg net weight, 2,100 lb/952.5 kg gross weight).

### Physical Characteristics

Property:	Description:
Appearance, 77°F (25°C)	Free-flowing, cream-colored powder
Passing #80 mesh (177-um) screen	98% minimum
Odor	None
Specific Gravity, 77°F (25°C)	1.2
Viscosity of 0.50% solution, 77°F (25°C)	1,400 cP
TSCA Inventory	Listed
DSL Inventory	Listed
C.A.S. Number	Proprietary

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 ArrTekk products in accordance with Safety Data Sheet (SDS) and proper safety procedures. Avoid product contamination with other materials. Keep bags sealed until use and store in a low humidity, dry place. Avoid puncturing bags or introducing moisture during storage.

### Technical Support

To request additional product information, contact your regional Road Science representative. You can also contact us at [918-960-3800](tel:918-960-3800) or [customerservice@roadscience.net](mailto:customerservice@roadscience.net), or visit our website at [roadscience.net](http://roadscience.net).

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