Cargill Anova® 1503 Warm Mix Additive

Product Description

Anova® 1503 is a non-toxic, biobased, non-corrosive and low odor liquid additive that enhances asphalt mixture workability, improves reliability, and allows for compaction at lower temperatures, at low dosage levels.

When used at recommended dosages, Anova 1503 does not change the PG/Pen grade of the asphalt binder.

Typical Properties

	VALUE	METHOD
Appearance	Dark Amber Liquid	Visual
Density, g/ml	0.98	ASTM D1475
Viscosity @ 40 °C, cSt (RV #18 Spindle at 0.6 RPM)	100-300	AOCS Ja 10-87
Flash Point °C, open cup	>180	AASHTO T48

Typical Formulation and Usage Instructions

Starting addition rates are typically 0.2 to 0.7% by total weight of the binder. The addition level for different mix designs should be tested and determined based on local specifications.

HMA Incorporation

Anova 1503 can be added to the bitumen at the terminal, or injected inline into the bitumen at the hot mix asphalt plant.

When added at the HMA plant, the additive pump system can be connected to asphalt binder line between storage tank and the drum/batch asphalt addition port.

Bitumen blended with the additive can be handled, stored, and shipped as done normally for paving grade binders, and in accordance to the safety datasheet and applicable specifications.

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Europe Schiphol
Turkey Istanbul
USA Minneapolis

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Packaging, Storage, and Handling

55 gallon/410 lbs drums, 330 gallon/2460 lb totes, 1000 liter IBC's and bulk trucks. Bulk truck shipments available upon request. Product storage and handling should be managed according to the information in the Safety Data Sheet. Product should not be stored for prolonged periods at temperatures exceeding 60 °C. Standard recommended storage life is 24 months, but product is expected to retain functionality during longer periods if stored appropriately.

Mixture Design and Quality Control/Quality Assurance Testing

Follow local specification requirements and industry best practices for QC/QA testing of HMA and WMA.

If desired, the additive can be laboratory-blended into heated and annealed asphalt binder (usually at 150 °C or 300 °F) by weighing out the proper dosage based on the weight of the bitumen in the container, followed by 3-5 minutes of blending to achieve homogeneity. High shear blending is not necessary.

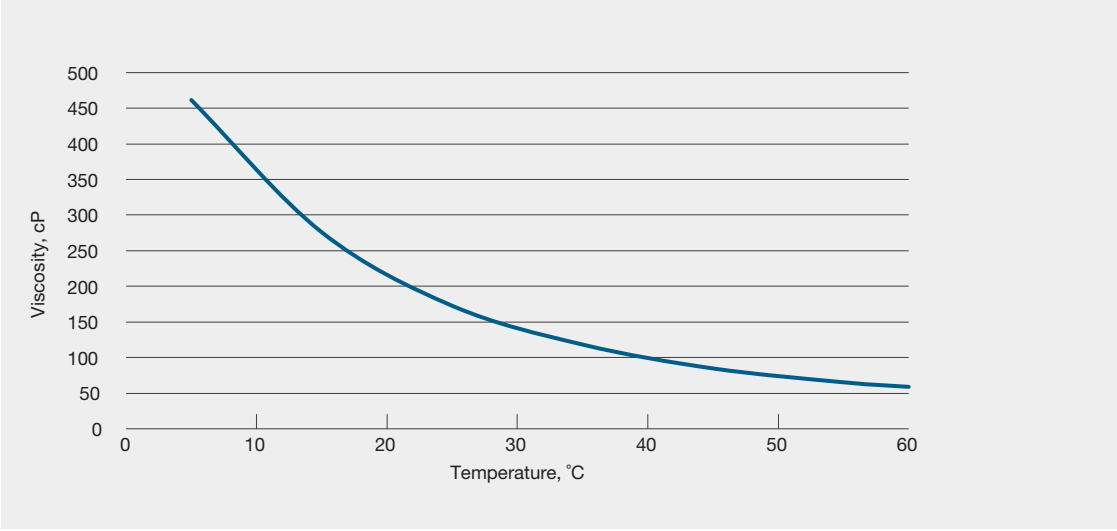
Production and Laydown Conditions

Production and compaction temperature should be set based on achievement of target densities as determined by local specifications, complete coating, and sufficient handwork quality, and can vary for different mix designs, plant setups, and production conditions.

Handle, laydown, and compact material in accordance to local specification and industry best practices.

Viscosity Profile and Pourpoint

The relatively low viscosity of Anova 1503 allows for convenient application and pumping of the product. The following graph provides typical information.



Cargill is here to provide tailored guidance and support, whatever your needs may be. **Reach out to your representative today.**

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