

HF-500M LD

ANIONIC HIGH-FLOAT MEDIUM-SETTING LOW DISTILLATE ASPHALT EMULSION

PRODUCT DESCRIPTION

HF-500M LD is an anionic high-float, medium-setting, low distillate emulsified asphalt.

Asphalt emulsions are classified according to the electric charge that surrounds the emulsion's asphalt particles (i.e. whether it is a cationic or an anionic emulsion) and how quickly the suspended asphalt particles separate from the surrounding water ("breaking"). A medium-setting emulsion is one that will break moderately fast when in contact with aggregate. The setting speed of any emulsion is relative to atmospheric conditions at the time of construction.

A high-float (HF) emulsion creates a gel-like structure in the asphalt residue after the water evaporates. This permits a thicker asphalt film on the aggregate without the danger of runoff, resulting in better aggregate coating and lower moisture susceptibility. The thicker asphalt film will create mixes and surface treatments with higher durability and longer lifespans. High-float emulsions also confer a reduced temperature susceptibility (i.e. better resistance to rutting and cracking).

GENERAL PRODUCT FEATURES

- Can be mixed in hot mix plants (drum or batch) and pugmills
- Lower VOCs when compared to regular **HF-500M**
- Long-term resistance to moisture damage, rutting, and low temperature cracking
- Thicker and more adhesive coatings on aggregate translate to higher durability.
- Adhesion promoters may be added.
- Remains pliable in stockpiles for up to 1 year

RECOMMENDED USE

HF-500M LD is recommended for plant (warm) or cold mixes used in stabilized base courses, patching mix, and in-place road mixing using a motor grader or reclaimer.

SPECIFICATIONS AND TYPICAL RESULTS

TEST	TYPICAL DATA	SPEC.	
		Min	Max
Tests on Emulsion			
SF Viscosity, 25°C, SFs	28	20	60
Sieve Test, 850 µm, %	0.02	-	0.1
Settlement, 5 days, %	2.1	-	5.0
Distillation Residue, 260°C, %	60.5	55	-
Oil Portion of Distillation, %	0	-	trace
Particle Charge	(-) or (+)	(-) or (+)	
Tests on Residue			
Penetration, 25°C, dmm	35	25	50
Ash Content, %	0.15	-	1.0

APPLICATION GUIDELINES

DESIGN CRITERIA

- A coating test should be run on job aggregate to determine compatibility and, in the case of cold mixing, to determine mix ability.
- For applicable application temperatures, contact your local **MCA Marketing** representative to obtain a temperature viscosity chart.
- Designs should be formulated prior to initial production and each time aggregate sources are changed. Testing of the final product is highly recommended to ensure a high quality seal. **MCA Technical Services** offers complete design services and product quality analysis.



MCASPHALT INDUSTRIES LIMITED

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 ISO 9001/14001/45001

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PACKAGING, STORAGE AND HANDLING

- **HF-500M LD** should be stored in bulk tanks, ideally vertical to minimize surface area
- Do not allow **HF-500M LD** to either freeze or boil: it will break. Safe storage temperatures range from 10°C (50°F) to 85°C (185°F).
- In bulk storage, mix the **HF-500M LD** every 1 to 2 weeks (more frequently in cold weather). Mixing may be done by paddle agitator (slow), loose gear pump, slow centrifugal pump, or other suitable low shear pump.
- Do not bubble air through **HF-500M LD** to agitate it: this creates excessive foam and may cause the **HF-500M LD** to break
- Always use clean storage containers. Make sure prior contents are compatible with **HF-500M LD** or the emulsion may break.

CERTIFICATION OF QUALITY

McAsphalt Industries Limited is accredited to the quality management standard **ISO 9001**, the environmental management standard **ISO 14001**, and the occupational health and safety standard **ISO 45001**.

Each lot of **HF-500M LD** is produced using the strictest quality, safety, and environmental guidelines. Each production lot is tested to ensure it meets or exceeds all performance requirements and is delivered with a Certificate of Analysis.

PRODUCT SUPPORT

With the **MCA Advantage**, you get a partner and advisor who will consult with you about designs, specifications, technical services, processes, and material selection. By developing innovative, custom-designed products that offer additional benefits such as peak performance in unique conditions, improved field performance, and greater environmental and health benefits, the **MCA Advantage** provides significant long-term cost savings, resulting in lower total cost of ownership.

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