

ASPHALT EMULSIONS

HF-500M LD - LOW DISTILLATE, HIGH FLOAT MEDIUM SETTING ASPHALT EMULSION

PRODUCT DESCRIPTION

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

Asphalt emulsions are classified according to the electric charge that surrounds the asphalt particles (i.e. cationic, anionic emulsions) and how quickly the suspended asphalt particles break (i.e. the water will evaporate, leaving the asphalt cement). A medium setting emulsion is designed to produce mixes that remain workable for extended periods. The setting speed is relative because it is affected by atmospheric conditions at time of construction.

A High Float (HF) emulsion creates a gel structure in the asphalt residue after the water evaporates. This permits a thicker asphalt film on the aggregate without danger of run-off resulting in better aggregate coating and lower moisture susceptibility. The thicker asphalt film allows High Float emulsions to perform in a wider temperature range. High float emulsions provide an asphalt residue with reduced temperature susceptibility, i.e. better resistance to rutting and low temperature cracking.

GENERAL PRODUCT FEATURES

- Can be mixed in hot mix plants (drum or batch) and pug mills
- Lower VOC's as compared to regular HF-500M
- Long term resistance to moisture damage, rutting and low temperature cracking
- Thicker and more adhesive coatings on aggregate means 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 for stabilized base courses and patching mix and in place road mixing using a motor grader or reclaimer.

SPECIFICATIONS AND TYPICAL RESULTS

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

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APPLICATION GUIDELINES

DESIGN CRITERIA

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

PACKAGING, STORAGE AND HANDLING

- **HF-500 LD** should be stored in bulk tanks, vertical if possible to minimize surface area
- Do not allow **HF-500 LD** to either freeze or boil – it will break. Storage temperature should not be allowed to fall below 10°C or exceed 85°C
- In all bulk storage, mix the **HF-500 LD** every 1–2 weeks (more frequently in cold weather). Mixing may be by paddle agitator (slow), loose gear pump, slow centrifugal pump, or other suitable low shear pump
- Do not bubble air through **HF-500 LD** to agitate it, this creates excessive foam and may cause the emulsion to break
- Always use clean containers. Make sure prior contents are compatible with **HF-500 LD** or the emulsion may break

CERTIFICATION OF QUALITY

McAsphalt Industries Limited is accredited to the quality standard **ISO 9001:2008** and to the environmental standard **ISO 14001:2004**.

Each lot of **HF-500 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 it 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, 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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