

CQS-1HP

CATIONIC QUICK-SETTING POLYMER-MODIFIED ASPHALT EMULSION

DESCRIPTION

CQS-1HP is a quick-setting cationic asphalt emulsion designed to break and cure quickly when used as part of a micro-surfacing system.

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 quick-setting emulsion is one that will destabilize quickly when in contact with aggregate. The setting speed of any emulsion is relative to atmospheric conditions at the time of construction.

McAsphalt Industry Limited's polymer-modified asphalt emulsions are superior to the conventional grades because of the addition of polymer during the emulsifying process. The end result is an enhanced elastic and adhesive asphalt residue matrix, ensuring a surface treatment with less aggregate loss. The polymer also provides better resistance to rutting and low temperature cracking.

PRODUCT FEATURES

- Less aggregate loss due to greater asphalt adhesion and cohesion
- Increased resistance to rutting and low-temperature cracking
- Low susceptibility to moisture
- Traffic can be restored very shortly after application.
- Seals narrow cracks against moisture penetration
- Prevents slippage plane between layers when used as a tack coat for micro-surfacing
- Can be utilized as tack coat with a typical dilution ratio of 3 parts water to 1 part emulsion

RECOMMENDED USE

CQS-1HP is specially designed to work with micro-surfacing systems and must be formulated to have a minimum workability time of approximately 180 seconds to ensure proper field mixing and workability.

OTHER POTENTIAL USES

- High performance polymer-modified tack coat providing additional bond and shear strength

SPECIFICATIONS AND TYPICAL RESULTS

TEST	TYPICAL DATA	SPEC.	
		Min	Max
Tests on Emulsion			
SF Viscosity, 50°C, SFs	20	10	60
Sieve Test, 850 µm, %	0.03	-	0.10
Distillation Residue, 204.4°C, %	64	62	-
Particle Charge	(+)	(+)	
Tests on Residue			
Penetration, 25°C, dmm	126	100	250

APPLICATION GUIDELINES

- Clean pavement surface prior to application.
- Do not allow **CQS-1HP** to either freeze or boil: it will break. Safe storage temperatures range from 10°C (50°F) to 85°C (185°F).
- Do not apply if precipitation is anticipated.
- Do not dilute product with any cutter stock or water. However, water may be added during the micro-surfacing mixing process to obtain the appropriate consistency and workability.
- The setting speed is relative because it is affected by atmospheric conditions at the time of construction.
- Field adjustment to various components of the micro-surfacing mix and/or plant modifications can be made to suit varying field and aggregate conditions.
- Emulsion content to be determined by a micro-surfacing mix design. Do not over dilute with water; maintain an application rate consistent with the mix design. The use of retarder vs the addition of excess water is recommended to control the breaking speed of a micro-surfacing system.



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 ISO 9001/14001/45001

CQS-1HP**CATIONIC QUICK-SETTING POLYMER-MODIFIED ASPHALT EMULSION****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 **CQS-1HP** 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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