CATIONIC CLEAN BOND COAT

CATIONIC NON-TRACKING EMULSION FOR TACK AND FOG COATS

PRODUCT DESCRIPTION

CATIONIC CLEAN BOND COAT (CCBC) is a cationic, slow-setting asphalt emulsion similar to CSS-1H that is designed for various paving and industrial uses. Its specific formulation allows for a faster curing than traditional tack coats, as well as a non-tracking, non-tacky finish.

Asphalt emulsions are classified according to the electric charge that surrounds the emulsion's asphalt particles (i.e. whether it is a cationic or a cationic emulsion) and how quickly the suspended asphalt particles separate from the surrounding water ("breaking"). **CCBC** emulsion has been designed for stability throughout its application while allowing for very quick curing times in the field in various applications, leading to a shorter return to traffic. The setting speed of any emulsion is relative to atmospheric conditions at the time of construction.

GENERAL PRODUCT FEATURES

- Fast curing when used as a tack coat or fog seal

- Provides a non-tracking finish when cured, allowing the sprayed pavement surface to be open to construction traffic without the tack coat being damaged.

- Because of its non-tracking behaviour, surfaces can be sprayed prior to paving for longer distances and longer times, sometimes several days before paving.

- Viscosity is low and may be further reduced with the addition of potable water.

- Provides good coating of dense-graded, high-fines-content aggregates as well as over clean chips.

- Seals minor cracks on existing chip seal/HMA

- Renews aged surfaces and prevents further oxidation

- Prevents slippage planes between layers

- Helps prevent ravelling/stone loss on new or existing chip seal/HMA roads

- Reduces snow plough damage otherwise often experienced on chip sealed roads

- May help reduces window claims seen during new chip seal construction by aiding in stone retention

RECOMMENDED USE

CCBC emulsion is formulated for use as a tack coat, fog seal, and dust suppressant.

TACK COATS

CCBC applied to an existing pavement surface will eliminate slippage planes and provide a bond with the new asphalt lift. It will deliver a strong bond and will not track under construction traffic.

FOG SEALS

CCBC is applied to an existing asphalt surface that has become oxidized with age in order to renew it and to seal narrow cracks and surface voids. Because of its quick cure and non-tracking properties, conventional sand blotting is often not required.

SPECIFICATIONS AND TYPICAL RESULTS

TEST	TYPICAL DATA	SPEC. Min	SPEC. Max
Tests on Emulsion			
SF Viscosity, 25°C, SFs	**37**	20	-
Sieve Test, 850 µm, %	**0.06**	-	0.1
Distillation Residue, 260°C, %	**64.9**	60	-
Oil Portion of Distillation, %	**0**	-	trace
Particle Charge	**(+)**	(+)	
Tests on Residue			
Penetration, 25°C, dmm	**42**	20	55

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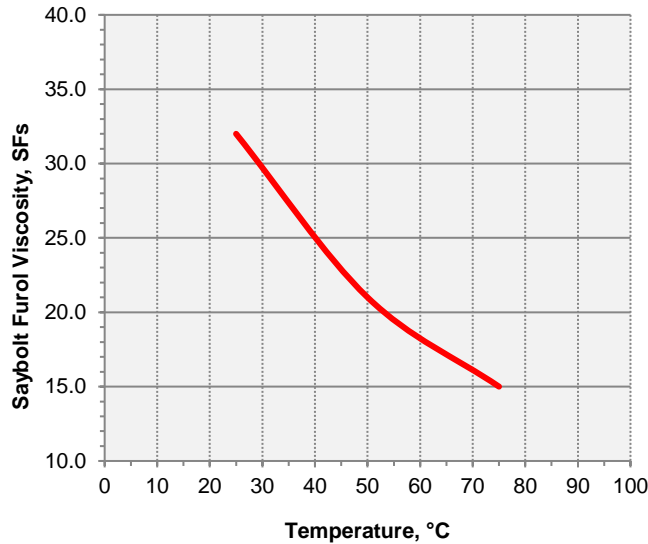
Each lot of **CCBC** is produced using the strictest quality, safety, and environmental guidelines. Each production lot is tested to ensure it meets or exceeds all performance requirements and is delivered with a Certificate of Analysis.

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TEMPERATURE VISCOSITY CHART

Y-axis: Saybolt Furol Viscosity, SFs (10.0 to 40.0)
X-axis: Temperature, °C (0 to 100)

APPLICATION GUIDELINES

TACK COATS

CCBC emulsion can be applied non-diluted or diluted up to 50/50 with water. The typical **CCBC** spray rates when used diluted for tack coats range from 0.25 to 0.70 L/m^2 (0.05 to 0.15 gal/yd^2).

FOG SEALS

CCBC emulsion can be applied non-diluted or diluted up to 50/50 with water. A spray rate in the order of 0.45 to 0.8 L/m^2 (0.1 to 0.18 gal/yd^2) for diluted **CCBC** is used for fog seals. Adjustments may be needed depending on the surface texture or degree of cracking.

DUST CONTROL

CCBC emulsion is usually applied diluted up to 50/50 with water when used for dust control. The diluted **CCBC** is sprayed in repeated light applications at a rate of 0.45 to 2.25 L/m^2 (0.1 to 0.5 gal/yd^2), depending on the condition of the existing surface.

PACKAGING, STORAGE AND HANDLING

CCBC emulsion is available in the following packaging:

- 20 L (5 gal) pails
- 205 L (54 gal) steel drums with bung hole
- 1000 L (264 gal) plastic tote
- Bulk loaded on non-insulated distributor or tank trucks
- **CCBC** should be stored in bulk tanks, ideally vertical to minimize surface area.
- Do not allow **CCBC** 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 **CCBC** 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 **CCBC** to agitate it: this creates excessive foam and may cause the **CCBC** to break.
- Always use clean storage containers. Make sure prior contents are compatible with **CCBC** or the emulsion may break.
- Only use approved and sealed containers for sampling the emulsion.

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.