

# **HP-200**

## SPRAY GRADE ANIONIC ASPHALT EMULSION

### PRODUCT DESCRIPTION

**HP-200** is a medium setting anionic asphalt emulsion that reacts with the aggregate moderately fast to revert from an emulsion to 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 one that will break moderately fast when in contact with aggregate. The setting speed is relative because it is affected by atmospheric conditions at time of construction.

## **GENERAL PRODUCT FEATURES**

- Its ability to penetrate into the granular base promotes a better bond between the surface treatment and substrate
- Due to its relatively high viscosity this product may be sprayed in thicker films
- Thicker coatings on aggregates means increased durability
- Although technically classified as a medium set emulsion, HP-200 exhibits rapid set properties while still maintaining good workability
- Specifically designed to be used with dirty and unwashed chips
- Has good wetting power to penetrate dust films on unwashed or dirty aggregate
- Traffic can be restored very shortly after application
- No run-off
- Seals narrow cracks against moisture penetration
- Can be utilised closer to unfavourable weather than otherwise possible with other conventional chip seal emulsions

### **RECOMMENDED USE**

**HP-200** cures quickly and produces thick asphalt films. Its viscosity permits a higher spray rate without danger of run-off.

**HP-200** is ideal for spray applications such as chip seals and double surface treatments using unwashed or dirty aggregate. It is not suitable for continuously graded aggregate seals.

### SPECIFICATIONS AND TYPICAL RESULTS

| TEST                                  | TYPICAL<br>DATA | SPEC RANGE |     |
|---------------------------------------|-----------------|------------|-----|
|                                       |                 | Min        | Max |
| Tests on Emulsion                     |                 |            |     |
| SF Viscosity, 50°C, SFs               | 172             | 100        | 250 |
| Sieve Test, 850 μm, %                 | 0.01            |            | 0.1 |
| Settlement, 5 days, %                 | 0.6             |            | 3.0 |
| Dist. Residue, 260°C, %               | 67.2            | 65         |     |
| Demul 50ml .02N CaCl <sub>2</sub> , % | 35              | 30         | 70  |
| Particle Charge                       | (-)             | (-)        |     |
| Tests on Residue                      |                 |            |     |
| Penetration, 25°C, dmm                | 110             | 100        | 200 |
| Ash Content, %                        | 0.11            |            | 1   |

### **APPLICATION GUIDELINES**

- Do not apply if precipitation is anticipated
- Do not dilute product with any cutter stock or water

Designs should be formulated prior to initial construction and each time aggregate sources are changed. Testing of final product is highly recommended to ensure a quality seal.

**MCA Technical Services** offers complete design services and product quality analysis.



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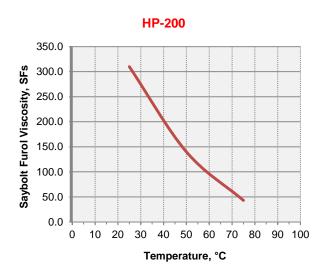
### CHIP SEALS/SURFACE TREATMENTS

A uniform application of **HP-200** asphalt emulsion to a prepared surface followed by a uniform application of cover aggregate. Aggregates used should be a one sized, unwashed chip whose size ranges from 6 mm (¼") to 19 mm (¾").

Spray rates will be determined from design, depending on aggregate size, type and whether a single or double surface treatment is employed.



#### TEMPERATURE-VISCOSITY CHART



## **CERTIFICATION OF QUALITY**

McAsphalt Industries Limited is accredited to the quality standard ISO 9001 and to the environmental standard ISO 14001.

Each lot of **HP-200** 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.

## PACKAGING, STORAGE AND HANDLING

**HP-200** should be stored in bulk tanks, vertical if possible, to minimize surface area.

Do not allow **HP-200** to either freeze or boil – it will break. Storage temperature should be between 10°C and 85°C.

In all bulk storage, mix the **HP-200** 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 **HP-200** to agitate it, this creates excessive foam and may cause the emulsion to 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, greater environmental and health benefits, the *MCA* **Advantage** provides significant long-term cost savings, resulting in lower "total cost of ownership."