ACM-5

ANIONIC COLD MIX ASPHALT EMULSION

PRODUCT DESCRIPTION

ACM-5 is a low viscosity, high residue anionic asphalt emulsion specifically designed and formulated for use in the production of plant-mixed **ACM-5 MacPatch**.

ACM-5 emulsion is designed to produce mixes that remain workable for extended periods.

ENVIRONMENT CANADA - CODE OF PRACTICE

ACM-5 meets the usage requirements for the ozone season under the Recommended Code of Practice for the Reduction of Volatile Organic Compound Emissions for Emulsified Asphalts.

GENERAL PRODUCT FEATURES

- To be mixed in hot mix plants (drums, batch, or pugmill)
- Unique formulation resists stripping and bleeding
- High residual binder content
- Remains workable in stockpiles for up to one year
- Excellent workability and cohesion at low temperatures

RECOMMENDED USE

ACM-5 emulsion is used to make **ACM-5 MacPatch**, cold mix, and cold patch which are used for repairing asphalt pavement, driveways, and parking lots.

APPLICATION GUIDELINES

- Do not apply ACM-5 if precipitation is anticipated.
- Contact your local MCA Marketing representative for application temperature guidelines.

DESIGN CRITERIA

A coating test should be run on job aggregate to determine compatibility and, in the case of cold mixing, mixing ability.

MIXING PROCEDURES

Please refer to McAsphalt Industries Limited's "ACM-5 MacPatch Technical Bulletin" in regard to mixing procedures for drum, batch, and pugmill plants.

TYPICAL AGGREGATE GRADATION

Mineral aggregates used should consist of clean, hard, and durable particles conforming to the below-listed physical requirements.

| SIEVE SIZE | % PASSING (BY WEIGHT) | | |
|----------------|-----------------------|--|--|
| 16.0 mm (5/8") | 100 | | |
| 13.2 mm (½") | 98 - 100 | | |
| 9.5 mm (3/8") | 85 - 98 | | |
| 4.75 mm (#4) | 50 - 85 | | |
| 2.36 mm (#8) | 35 - 65 | | |
| 1.18 mm (#16) | 25 - 50 | | |
| 600 µm (#30) | 15 - 40 | | |
| 300 μm (#50) | 7 - 25 | | |
| 150 µm (#100) | 2 - 13 | | |
| 75 μm (#200) | 0 - 7 | | |

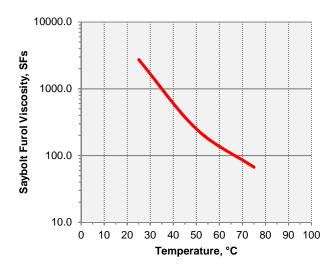
SPECIFICATIONS AND TYPICAL RESULTS

| TEOT | TYPICAL | SPEC. | | |
|--------------------------------|---------|-------|-----|--|
| TEST | DATA | Min | Max | |
| Tests on Emulsion | | | | |
| SF Viscosity, 50°C, SFs | 160 | 100 | 300 | |
| Sieve Test, 850 µm, % | 0.03 | - | 0.1 | |
| Settlement, 5 days, % | 0.6 | - | 3.0 | |
| Distillation Residue, 260°C, % | 92 | 85 | - | |
| Oil Portion of Distillation, % | 2.3 | 2 | 7 | |
| Particle Charge | (+) | (+) | | |
| Tests on Residue | | | | |
| Penetration, 25°C, dmm | 500+ | 500 | - | |

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TEMPERATURE VISCOSITY CHART



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 **ACM-5** 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.

PACKAGING, STORAGE AND HANDLING

- ACM-5 should be stored in bulk tanks, ideally vertical to minimize surface area.
- Do not allow ACM-5 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 ACM-5 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 ACM-5 to agitate it: this creates excessive foam and may cause the ACM-5 to break.
- Always use clean storage containers. Make sure prior contents are compatible with ACM-5 or the emulsion may break.
- Only use approved and sealed containers for sampling the emulsion.

