

REJUVENITE A

CATIONIC EMULSIFIED REJUVENATING AGENT

PRODUCT DESCRIPTION

REJUVENITE A is a spray-grade, emulsified asphalt rejuvenating agent. Its unique formulation prolongs pavement life by restoring a pavement's original properties lost through natural oxidation, loss of volatiles, effects of de-icing chemicals, and other surface contaminants.

GENERAL PRODUCT FEATURES

- Restores the physical and chemical properties in old asphalt concrete pavement, improving the low temperature Performance Grade (PG), increasing its resistance to cracking
- Restores the aromatic fraction to the old asphalt concrete pavement binder that was lost due to oxidative field aging
- Does not cause continuous age-softening of the old asphalt concrete pavement binder. Continuous age-softening increases rutting potential.
- Can be combined with virgin asphalt in a RAP mix to replace and rejuvenate the aged asphalt (see **REJUVENITE RAP**)
- Can be used as a low-volume surface mix when added to RAP. The surface should be covered with a thin surfacing or fog coat.

RECOMMENDED USE

REJUVENITE A can be used as an emulsified preservative seal which penetrates a pavement surface and restores the original properties of the asphalt concrete. It helps to seal hairline cracks and to fill surface pores that have developed due to age-hardening in an asphalt concrete.

REJUVENITE A added to asphalt concrete pavement during or after heater scarification will return the pavement to its original state by restoring its flexibility and thus "reversing" and delaying the aging process.

SPECIFICATIONS AND TYPICAL RESULTS

TEST	TYPICAL DATA	SPEC.	
		Min	Max
Tests on Emulsion			
SF Viscosity, 25°C, SFs	22	15	40
Sieve Test, 850 µm, %	Pass	-	0.10
Miscibility Test, 0.2 N CaCl ₂	Pass	No coagulation	
Evaporation Residue, 150°C, %	61.1	60	65
Particle Charge	(+)	(+)	
Tests on Residue			
Flash Point by COC, °C	200+	200	-
Kinematic Viscosity, 60°C, cSt	115	100	200
Asphaltenes (n-heptane), %	0	-	1.0
Saturates, (D2007), %	22	-	30

TESTING PROCEDURES FOOTNOTE

There are a number of agencies which cite ASTM D2006 "Method of Test for Characteristic Groups in Rubber Extender and Processing Oils by the Precipitation Method" as a test protocol for determining the fractions of rejuvenating emulsion residues. This test method was withdrawn by ASTM in 1975 and was typically referred to as a Rostler-Sternberg analysis. Newer protocols (such as ASTM D2007, ASTM D4124, ASTM D2140, SARA analysis, etc.) are used for determining the fractional composition of oils. Such protocols are safer and more accurate than the old ASTM D2006.

PACKAGING, STORAGE AND HANDLING

REJUVENITE A is available in the following packaging:

- 20 L (5 gal) pail
- 205 L (54 gal) drum
- Bulk Tanker

STORAGE

Keep **REJUVENITE A** in its original container or an approved alternative made from a compatible material. Keep the container tightly closed when in use. Store in accordance with local regulations.



MCASPHALT INDUSTRIES LIMITED

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 ISO 9001/14001/45001

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APPLICATION GUIDELINES

- **REJUVENITE A** can be sprayed using a conventional asphalt distributor on existing asphalt pavements. Prior to spraying, the product should be diluted with potable water to ~40% residue (2 parts **REJUVENITE A** to 1 part water).
- General application guidelines for diluted **REJUVENITE A** are between 0.3 to 0.5 L/m² (0.007 to 0.012 gal/ft²) or as directed by the project engineer. Test runs might be required on specific pavement surfaces. The absolute minimum application rate should be 0.15 L/m² (0.004 gal/ft²) and under no circumstances should the application rate exceed 1.0 L/m² (0.025 gal/ft²).
- **REJUVENITE A** should not be applied if the existing pavement surface has low surface voids, shows signs of flushing, or is coated by any type of asphalt sealer.
- After applying **REJUVENITE A** to an existing asphalt pavement, the surface should be allowed to absorb most of the oils. This normally takes 30 to 60 minutes, depending on the surface tightness and voids of the pavement. When no standing material remains on the surface, a light coat of sand (generally 0.5 to 1.0 kg/m² (0.1 to 0.2 lb/ft²)) should be applied to avoid creating low skid resistance and slick spots on the pavement.
- When used with heater scarifying, **REJUVENITE A** should be used undiluted. Core samples should always be analyzed and a full design should be done before construction to determine the exact dosage of **REJUVENITE A** to be applied.
- No heat should be applied to **REJUVENITE A** emulsion when transported or sprayed.
- The following performance guidelines should be consulted prior to applying **REJUVENITE A**: AEMA (Restorative Seals using Emulsified Recycled Agents) and ARRA (Heater Scarification Guidelines).
- Contact your local **MCA Marketing** representative for further instructions and more application guidelines.

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 **REJUVENITE A** 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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