

ADVANTAGE

ASPHALT EMULSIONS

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."

ASPHALT EMULSIONS

McAsphalt's asphalt emulsion products are manufactured to meet or exceed specific engineering criteria demanded by user agencies and industry. McAsphalt has also developed a proprietary line of modified products that can be custom-designed to offer numerous additional benefits. Our engineered products provide peak performance in unique conditions, improved field performance, greater environmental and health benefits, and superior cost effectiveness throughout the pavement's lifecycle.

MCA Advantage combines our decades of experience with the industry's top research and development groups, to bring you the most advanced range of product options available in today's marketplace.

Pavement Performance—Design Criteria

McAsphalt's custom-designed asphalt emulsions are engineered to enhance specific design criteria to provide improved performance within definitive environments. As part of the *MCA* Advantage, our experts can consult with you to address questions about mix design, specifications, technical services and the selection of materials to ensure you engineer the performance requirements that best address your pavement conditions—saving you the cost and inconvenience of premature maintenance and repairs.

	Industr	MCA Advantage	
Conditions and Criteria	Conventional	Polymer-modified	Custom Designed
Aggregate Retention	✓	<i>11</i>	<i>1111</i>
Low-temperature thermal cracking	/	11	1111
Fatigue resistance	✓	<i>11</i>	<i>\$\$\$\$</i>
Moisture susceptibility	✓	/	1111
Aging	✓	<i>11</i>	<i>5555</i>
Conservation of Natural Resources	/	11	1111





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Pavement Performance—Infield/On-Site

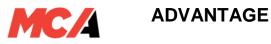
McAsphalt's technical laboratory and field experts can help you maximize the field performance of your process while maximizing your infrastructure investment—it's all part of how we deliver the MCA Advantage.

	Industry Standard		MCA Advantage	
Field Conditions	Conventional	Polymer-modified	Custom Designed	
Improved Aggregate Retention	✓	11	JJJJ	
Improved Service Life	✓	<i>JJ</i>	JJJJ	
Lower Environmental Impact	✓	<i>√</i> √	JJJJ	
Use of 100% RAP	✓	<i>JJ</i>	JJJJ	
Structural Improvement	✓	<i>11</i>	JJJJ	

Lifecycle Cost Analysis

Roads are a significant infrastructure investment; in the planning stages, short-term savings can add up to long-term costs in terms of maintenance, repairs and the eventual need to rebuild. MCA Advantage delivers significant long-term cost savings, resulting in lower "total cost of ownership."

	Industry Standard		MCA Advantage	
Financial Considerations	Conventional	Polymer-modified	Custom Designed	
Initial cost	\$	\$\$	\$\$\$	
Maintenance cost	\$\$\$	\$\$	\$	
Rehabilitation cost	\$\$\$	\$\$	\$	
User costs	\$\$\$	\$\$	\$	
Residual value	\$	\$	\$	
Salvage value	\$	\$	\$	



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Environmental and Health/Safety

MCA Advantage focuses our expertise on developing engineered products that deliver significant environmental and health/safety benefits. Benefits range from incorporating recycled materials and energy-saving processes into programs that will reduce the overall environmental impact, to developing low-emission mixes and low VOC (volatile organic compounds) products that can improve health and safety conditions for employees.

	Industry standard		MCA Customized Solutions
Environmental/Safety Benefits	Conventional	Polymer-modified	
Reduced energy consumption	\$\$	\$ \$	\$\$\$
Reduced greenhouse gases	\$\$	\$ \$	\$\$\$
Reduced maintenance	•	\$	\$\$\$
Reduced materials and waste via recycling	\$\$	\$\$	\$\$\$
Renewal of Surface Texture	•	\$	\$\$\$
Less Hazardous for Workers	\$		\$\$\$