

CHP-2rP

CATIONIC HIGH PERFORMANCE POLYMER-MODIFIED ASPHALT EMULSION

PRODUCT DESCRIPTION

CHP-2rP is a polymer modified rapid setting cationic asphalt emulsion that reacts quickly with the aggregate 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. A rapid setting emulsion is one that will destabilize quickly when in contact with aggregate. The setting speed is relative because it is affected by atmospheric conditions at time of construction.

GENERAL PRODUCT FEATURES

- Less aggregate loss due to greater asphalt adhesion and cohesion of the polymer-modified residue
- Thicker films due to high viscosity
- Thicker and more adhesive coatings on aggregates - means increased durability
- Traffic can be restored very shortly after application
- No run off
- Seals narrow cracks against moisture penetration
- **McAsphalt** has the technology to manufacture modified asphalt emulsions utilizing a SBS polymer modified asphalt cement base or utilizing a virgin asphalt cement base and a latex SBR.

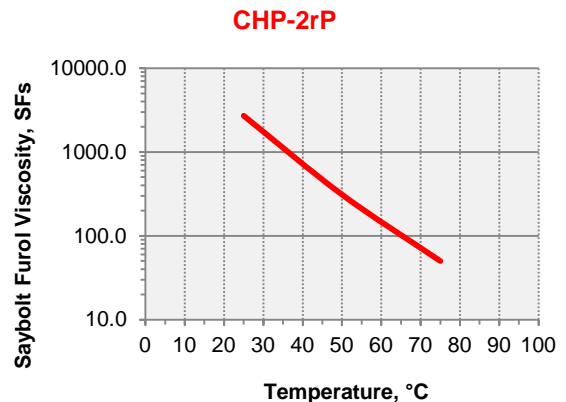
RECOMMENDED USE

CHP-2rP cures quickly and produces a heavy asphalt film. Its high viscosity permits higher application rates without danger of run-off, whereas the adhesive-cohesive properties gained from the addition of polymer make this emulsion ideal for spray applications such as single or multiple chip seals.

SPECIFICATIONS AND TYPICAL RESULTS

TEST	TYPICAL DATA	SPEC RANGE	
		Min	Max
Tests on Emulsion			
SF Viscosity, 50°C, SFs	210	75	400
Sieve Test, 850 µm, %	0.06	...	0.2
Storage Stability, 24 h, %	0.8	...	1.0
Demuls. 35ml .8 DOSS, %	65	40	...
Dist. Residue, 204.4°C, %	67.5	65	...
Oil Portion of Dist., %	0.4	...	3
Particle Charge	(+)	(+)	
Tests on Residue			
Penetration, 25°C, dmm	108	100	250
Elastic Recovery, 10°C, %	62	55	...
Force Ductility, 4°C, kg	0.68	0.5	...
Ash Content, 600°C, %	0.15	...	1.0

TEMPERATURE-VISCOSITY CHART



- Clean/prime/tack pavement surface prior to application

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- **Do Not** apply if precipitation is anticipated
- Contact your local **MCA Marketing** representative for guideline application temperatures

DESIGN GUIDELINES

Designs should be formulated prior to initial production, 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.

SPRAY PATCHING

Spray patching consists of alternate applications of **CHP-2rP** and aggregate to repair deteriorated areas in the pavement surface. Alternate layers of **CHP-2rP** and aggregate may also be used to repair depressions in the road due to rutting or ravelling. Excellent adhesion means longer lasting repairs.

SINGLE OR MULTIPLE CHIP SEALS

A controlled application of **CHP-2rP** asphalt emulsion to a prepared surface followed by a controlled application of cover aggregate (per lift). Aggregates used should be single sized, washed chips whose sizes range from 6 mm (¼"), 9.5 mm (3/8") to 19 mm (¾"). More durable, long lasting surface treatments with increased resistance to rutting and low temperature cracking are possible with **CHP-2rP**.



PACKAGING, STORAGE AND HANDLING

CHP-2rP should be stored in bulk tanks, vertical if possible to minimize surface area

Do not allow **CHP-2rP** to either freeze or boil – it will break. Storage temperature should not be allowed to fall below 10°C or exceed 85°

In all bulk storage, mix the **CHP-2rP** 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 **CHP-2rP** to agitate it, this creates excessive foam and may cause the emulsion to break

Always use clean containers. Make sure prior contents are compatible with **CHP-2rP** or the emulsion may break

CERTIFICATION OF QUALITY

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

Each lot of **CHP-2rP** 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 it 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, greater environmental and health benefits, the **MCA Advantage** provides significant long-term cost savings, resulting in lower “total cost of ownership.”



McASPHALT INDUSTRIES LIMITED

8800 Sheppard Ave East T 416.281.8181 TF 1.800.268.4238
 Toronto, ON M1B 5R4 F 416.281.8842 E info@mcasphalt.com

mcasphalt.com
 ISO 9001/14001/45001