

# HIGHLY FLEXIBLE ASPHALT MIX FOR MUNICIPAL ROADS

Uses customer-provided aggregates with gradations designed to provide superior rut and fatigue resistance

Uses highly polymer-modified asphalt cement

Increased asphalt cement content gives the mix high durability and extends its fatigue life under repetitive heavy traffic

Engineered binder provides an enhanced resistance to extremely low-temperature cracking as well as reflective cracking

## PRODUCT DESCRIPTION

**EVERLIFE FLEX**<sup>®</sup> is a high performance asphalt mix designed to be placed as an extremely durable and cost-effective single-lift maintenance overlay using standard paving practices and conventional equipment.

**EVERLIFE FLEX**<sup>®</sup> can be tailored to address specific traffic volumes and climatic conditions in order to provide superior flexibility in low temperatures and a high level of resistance to rutting at higher temperatures. This mix can also be produced at lower temperatures than conventional hot mix asphalt, thereby reducing greenhouse gas emissions and lowering the process's energy consumption. Consequently, compaction temperatures are lower, thus reducing fumes, decreasing mix oxidation, and improving jobsite safety throughout the paving process.

## **RECOMMENDED USES**

- Rural roads and residential subdivisions with low to medium traffic
- City streets and intersections with moderate to heavy traffic
- Thin overlays on concrete pavements

## GENERAL PRODUCT FEATURES

- Uses customer-specified aggregates with gradations designed to ensure superior rut and fatigue resistance
- Uses highly polymer-modified asphalt cement
- Designed to meet and/or exceed the requirements outlined in relevant specifications
- Increased asphalt cement content gives the mix high durability and extends its fatigue life under repetitive heavy traffic
- Engineered binder provides an enhanced resistance to extremely low-temperature cracking, as well as reflective cracking
- Works best when combined with a high performance tack coat such as McAsphalt's CLEAN BOND COAT emulsion. It can also be used with a granular sealer such as ENVIRO-PREM emulsion primer when used over an existing or corrected granular substrate

PROPERTY	SPECIFICATIONS	
	Min.	Max.
Gradation		
9.50 mm, % passing	95	100
4.75 mm, % passing	45	55
2.36 mm, % passing	25	35
0.075 mm, % passing	2	6
Volumetric and Performance Requirements		
Asphalt Cement Type	EVERLIFE FLEX PMA®	
Asphalt Content, %	5.2	-
Resilient Modulus (EN 12697-26, Annex C), MPa		
+10.0°C	-	1000
0.00°C	-	3000
-10.0°C	-	10000
Rutting Performance by Hamburg Wheel Tracking (submerged) (AASHTO T 324), 50°C, 20000 passes, mm	-	7.0
Air Voids, %	5.0	10.0
Marshall Flow, 0.25 mm	8.0	-
Marshall Stability, N	7200	-
Fatigue Life by Semi-Circular Bending (AASHTO TP 124), 25°C, I-FIT value	35.0	-
Overlay Tester (Tex-248-F), 25°C, cycles to failure	750	-

# DESIGN GUIDELINES

**EVERLIFE FLEX®** asphalt mix specifications will vary depending on jurisdictions and local practices. *MCA* **Engineering Services** will design a custom mix to meet all relevant specifications and performance criteria.

Our Technical Team will:

- custom-select and formulate the highly modified EVERLIFE FLEX PMA<sup>®</sup> required
- select the appropriate aggregate and blending proportions
- create a mix design, carry out performance testing, and recommend application guidelines and best practices



THE RIGHT MIX

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## EVERLIFE FLEX® POLYMER-MODIFIED ASPHALT

**EVERLIFE FLEX PMA®** contains specialty modifiers and additives that improve mix handling during production and provide more workability at lower temperatures in the field when compared to traditional hot mix asphalt, all while achieving its targeted in-situ mix density.

**EVERLIFE FLEX PMA®** is engineered to provide resistance to various distresses such as:

- rutting at higher pavement temperatures
- fatigue at intermediate and freeze-thaw temperatures
- thermal cracking at low pavement temperatures
- reflective cracking

#### 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.

## 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.

McAsphalt's quality control plan is available to you, providing guidance on the production, laydown, and compaction processes techniques required to correctly apply **EVERLIFE FLEX**<sup>®</sup>. In addition, our team of experts is always available to offer unsurpassed technical support during the construction phase.

The quality control plan will ensure that:

- the EVERLIFE FLEX<sup>®</sup> is produced at the recommended temperature
- the EVERLIFE FLEX PMA® is formulated to meet or exceed requirements and is shipped at the correct temperature
- the appropriate lay-down equipment is utilized
- the proper mix compaction best practices are used to achieve EVERLIFE FLEX<sup>®</sup>'s target in-situ density





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