

## MACSEAL 6690-4 MOD

### HOT APPLIED JOINT & CRACK SEALANT, ASTM 6690 TYPE IV MODIFIED OR EQUIVALENT

#### PRODUCT DESCRIPTION

**MACSEAL 6690-4 MOD** is a high performance, hot applied, single component extra low modulus joint and crack sealant

**MACSEAL 6690-4 MOD** is a very soft sealant that offers excellent low temperature bonding properties, while still maintaining a high degree of resiliency to reject incompressibles.

**MACSEAL 6690-4 MOD** permits high elongation at cold temperatures with low stress development. It will not flow from the joint or be picked up by vehicle tires at high service temperatures.

#### GENERAL PRODUCT FEATURES

- Cures to a non-tacky finish
- Can be applied over a wide range of temperatures
- Engineered for very cold climates
- Extra low modulus characteristics allow for a decrease in stress build up and enhanced field performance
- Easy to apply via gravity type mechanism (e.g. pour pot, walk behind units etc.) as well as via pump and hose/wand method
- Superior field performance when used in “Blow and Go” or “Clean and Fill” operations relative to traditional “harder type” sealants due to its very flexible nature and extra low modulus properties
- Adheres very well to both hot mix asphalt and Portland cement concrete
- Engineered specifically for double boiler/oil jacketed kettles. Not recommended for direct fire melters
- Prevents the intrusion of water and incompressibles into the cracks of asphaltic and Portland cement concrete pavements

#### RECOMMENDED USE

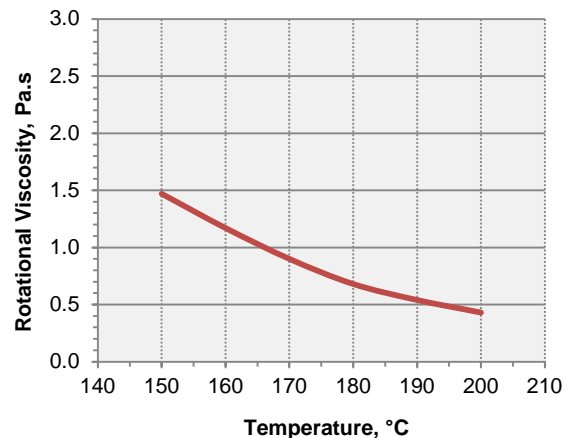
**MACSEAL 6690-4 MOD** is recommended for the large scale sealing of joints and random cracks in portland cement concrete and asphaltic concrete pavements in cold climate areas. **MACSEAL 6690-4 MOD** was specifically formulated to provide extra protection against low temperature expansion and repeated freeze thaw cycles.

#### SPECIFICATIONS AND TYPICAL RESULTS

TEST	TYPICAL DATA	SPEC RANGE	
		Min	Max
Flash Point (COC), °C	<b>245</b>	...	...
Cone Penetration, 25°C, dmm	<b>135</b>	90	150
Flow, 60°C, mm	<b>1</b>	...	5
Softening Point R&B, °C	<b>82</b>	80	...
Bond, 200%, -29°C, 3 cycles	<b>Pass 3</b>	3 sp	...
Resilience, 25°C, %	<b>56</b>	30	60
Asphalt Compatibility	<b>Pass</b>	Pass	...

#### TEMPERATURE – VISCOSITY CURVE

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### APPLICATION GUIDELINES

For detailed **MACSEAL 6690-4 MOD** joint and crack preparation or specific application instructions, refer to specifying agency publications or contact manufacturer representative.

### APPLICABLE SPECIFICATIONS

**MACSEAL 6690-4 MOD** meets or exceeds:

- ASTM D-6690 Type IV (Modified) formerly D-3405 Modified- Extra Low Modulus
- Various State and Provincial D.O.T. specifications

### APPLICATION TEMPERATURES

- Recommended Pouring Temperature 170°C (340°F)
- Maximum Safe Heating Temperature 200°C (392°F)

### MELTING EQUIPMENT

**MACSEAL 6690-4 MOD** must be melted in a double boiler, oil-jacketed kettle, equipped with mechanical agitator and separate temperature thermometers for both the oil bath and melting vat.

### COVERAGE

**MACSEAL 6690-4 MOD** weighs approximately 9.8 lb/gal (1.18 kg/L). A joint ½ x ½ " (12.7 mm x 12.7 mm) requires approximately 12.8 lb per 100 lineal feet or 19 kg per 100 lineal meters.



### PACKAGING, STORAGE AND HANDLING

**MACSEAL 6690-4 MOD** is available in the following packaging:

- 474 lb (215kg), open top drums containing 10 individual pucks of roughly 47.4 lb.
- 2 x 25 lb polybags in a high strength corrugated cardboard container

**MACSEAL 6690-4 MOD** in drums can be stored inside or exposed to the elements, however **MACSEAL 6690-4 MOD** in boxes should be kept in a dry environment.

### CERTIFICATION OF QUALITY

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

Each lot of **MACSEAL 6690-4 MOD** 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."



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