

1.0 GENERAL

1.1 Scope

- 1.1.1 This section specifies requirements for products, equipment, procedures and standards for routing the cracks and applying hot-poured rubberized asphalt on the flexible pavement.

2.0 SEALANT AND EQUIPMENT

- **Use only those products in the Approved Products List, product ID:**

- **RP – 02: Crack Sealant**

2.1 Crack Sealant

- 2.1.1 The crack sealant shall be a high-quality rubberized asphalt with proven performance in Saskatchewan, Manitoba or Alberta. The product's performance must be field performance evaluated by independent public agency and placed on the approved product list for that agency and meet - rubber sealant which meets requirements of ASTM D6690 for type IV or ASTM D6690 type IV modified which requires minimum Resilience at 25C to be 30% and maximum flow at 60C to be 10 mm and passes required tests according to ASTM D5329. The crack sealant supplier should be accredited to the quality standard ISO 9001 and the environmental standard ISO 14001. The crack sealant should provide long life, healability, low service temperature flexibility and high service temperature resistance to flow.

2.2 Equipment

- 2.2.1 Items used for crack sealing include but are not limited to the following:

- .1 Traffic Accommodation (refer to Temporary Traffic Control Manual)
- .2 Crack Router
- .3 Vacuum Cleaner
- .4 Hot Compressed-air Heat Lance (HAL) producing hot compressed air at 90 psi (620 kPa)
- .5 Oil Jacketed Melting Kettles with Thermostatic Heat Controls, Continuous Agitation, and Over-heating Safety Control
- .6 Squeegee
- .7 Blotter Coating

3.0 EXECUTION

3.1 Crack Preparation

3.1.1 Cracks and joints shall be cleaned using appropriate routing, sawing, brushing, blowing, or other techniques to provide intact bonding faces which are free of moisture, dust, or other contaminants.

3.2 Crack Routing and HAL Treatment

3.2.1 Cracks shall be widened using a router to form a sealant reservoir which is 20 mm wide and 20 mm deep. The routed cracks should then be cleaned by Hot Air Lance to remove all dust and free all moisture and then sealed in such a manner that the sealant is surface level upon cooling. All routed cracks should be approved by the Engineer before sealing.

3.3 Crack Sealing

3.3.1 The sealant shall be applied using a melter-applicator unit. The melter-applicator unit shall be a self-contained double boiler device. It must be equipped with an on the electronic board heat-controlling device to permit the attainment of a pre-determined temperature, then, maintain that temperature as long as required. The unit shall also have a means to vigorously and continuously agitate the sealant. The sealant shall be applied to the pavement under pressure supplied by a positive displacement pump.

3.4 Blotter Coat

3.4.1 A blotter coat is required to prevent pick-up upon re-opening to traffic. Coating materials should be approved by the Engineer. The cracks must be sufficiently dry to permit bonding of the sealant. The contract shall ensure traffic is not allowed on the newly sealed surface for one (1) hour from completion of the crack sealing.