



PRODUCT DESCRIPTION

CRACK-RITE™ HP3405 is a single component, hot applied crack and joint sealant. It consists of asphalt cement, a special blend of virgin and vulcanized ground rubber, plasticizers and reinforcing fillers. **CRACK-RITE™ HP3405** is furnished as a solid and is self-leveling at application temperatures. When properly installed, it creates an adhesive, resilient seal that protects against the infiltration of moisture or incompressibles throughout repeated thermal cycles of expansion and contraction. **CRACK-RITE™ HP3405** will not flow from the crack or joint at ambient temperature and exhibits excellent low temperature ductility, weather resistance and low oxidation breakdown characteristics.

PRODUCT USE

CRACK-RITE™ HP3405 is an economical sealant recommended for large scale sealing of transverse and longitudinal joints in Portland concrete cement and asphaltic concrete pavements, bridges, airport runways, taxi-strips, etc. It is also used for the maintenance sealing of cracks and joints in asphaltic concrete pavement/parking lots and is well suited to be used in moderate temperature conditions.

SPECIFICATION CONFORMANCE

CRACK-RITE™ HP3405 joint and crack sealant conforms to the following specifications:

Meets:

- ASTM D6690-01 Type II, Type III
- AASHTO M-301
- Federal Specification SS-S-164

PHYSICAL PROPERTIES TEST

TEST	ASTM D6690, Type II, III	LIMITATIONS
Cone penetration @ 77° F (25°C)	150g,	less than 90
Bond @ 0°F (-18°C), 50% Ext. (Type I)		pass 5 cycles
@ -20°F (-28°C), 50% Ext. (Type II, III)		pass 3 cycles
Flow @ 140°F (60°C)		3 mm max
Asphalt compatibility (ASTM D 3407)		pass

ADDITIONAL PROPERTIES

Softening point (ASTM D36)	185°F (88°C)
Brookfield viscosity @ 370°F	40 Poise
Weight per gallon	10.7 lbs.

CRACK & JOINT PREPARATION

Existing Cracks and Joints

Remove all existing sealant, dirt, sand, dust or other loose impediment from joint interfaces. Loosen and remove by plowing, cutting, blowing, wire brushing, sand blasting, applying high pressure water, heatlancing or using a combination of all techniques. The cracks/joints can be prepared utilizing one or more of the following tools or equipment:

- Hand tools (i.e., shovels, metal bars with chisel-shaped ends, stiff bristle brooms, wire brushes or scrapers).
- Heatlance/TaFa Unit which operates @ 3000°F.
- Router - vertical spindle or rotary type.
- Oil-free compressed air, capable of furnishing (90 PSI) pressure at nozzle. The compressor shall be equipped with traps that will maintain the compressed air free of oil and water.
- Sawing equipment.

All cracks and joints **must be free of moisture** and thoroughly cleaned prior to sealing.

NEW CONSTRUCTION

Cracks and Joints must be clean and dry prior to sealing. Curing compound on joint interfaces must be removed by sandblasting. Dust, dirt and debris should be blown out of the joints with oil-free compressed air immediately prior to sealing operation.

CRACK & JOINT CONFIGURATION

The ideal Crack & Joint Configuration is a 1:1 depth to width ratio.

RE-SHAPING

All cracks 1/4" and less should be routed to a minimum width of 1/2" and minimum depth of a 1/2". Cracks over 1/2" in width that have an adequate sealant reservoir and intact joint interface, do not require widening or reshaping.

BACKER ROD

Cracks over 1" in depth and 3/4" or over in width shall be pre-filled with bituminous treated hemp or jute roving or a non-shrinking, non-absorbent material with a melting point higher than sealant temperature. Backer rod should be 25% wider than crack so that it does not slip down or float out of the crack after installation of sealant.

MELTING EQUIPMENT

CRACK-RITE™ HP3405 joint sealant **must be heated in an indirect fired, double-jacketed kettle or melter.** The space between the inner and outer shell is to be filled with oil or other transfer medium having a flash point of not less than 600°F. The equipment should include positive temperature controls, automatic and continuous mechanical agitation, recirculation pumps and thermometers for continuous reading of temperature of both the sealant compound and the heat transfer medium. The sealant compound must remain within the range of temperatures specified and must be agitated continuously during the melting and pouring process.

MATERIAL TEMPERATURE RECOMMENDATIONS

CRACK-RITE™ HP3405 will flow readily when heated to the following temperature range:

- Recommended pouring temperature 370 - 380°F
- Safe heating temperature 410°F

MATERIAL LIMITATIONS

CRACK-RITE™ HP3405 must not be heated above 410°F. Overheating for a long period of time will result in degradation of the material. If sealant becomes thin or stringy and thick, it should be removed from melter immediately and discarded in an environmentally safe manner. No sealant shall be applied in wet cracks or where frost, snow or ice is present. The pavement temperature must be above 40°F (4°C) at the time of installation.

IMPORTANT: Application of sealant to damp or improperly cleaned surfaces may result in a low degree of adhesion which can cause the sealant to pull out of the crack/joint.

METHOD OF APPLICATION

CRACK-RITE™ HP3405 is a low-viscosity, self-leveling sealant that can be applied by a pressure-feed wand system, wheeled pour-pots complete with rubber shoe and control valve, or hand-held pour-pots. Sealant shall be applied uniformly from bottom to top and shall be installed without formation of entrapped air or voids. Cracks and joints should be filled full and tight. To minimize tracking by vehicle tires and/or plow abrasion, and unless otherwise directed, the cracks shall be completely filled flush with the pavement and not more than 1/4" below the surface. Care should be taken to minimize or eliminate lumps or unnecessary surplus of sealant on pavement.

CURE TIME

CRACK-RITE™ HP3405 will exhibit no tracking 20 minutes after being installed at 77°F ambient temperature. If vehicle traffic must pass over crack sealant prior to curing, Boiler Slag, Black Beauty or equivalent should be applied to crack/ joint to minimize tracking.

PACKAGING AND AVAILABILITY

CRACK-RITE™ HP3405 is packaged in 50lb. split pack cartons. Individual triangular blocks are designed to minimize the hazard of material splashing that can occur when blocks are loaded into a melter.

COVERAGE 1/2" x 1/2" Joint Size

- Sealant required to fill 1/2" x 1/2" crack or joint:
100 lineal feet / 12.3 lbs

Commercial / Industrial Crack & Joint Sealant



