

DIRECT FIRE

PRODUCT DESCRIPTION

Crack-Rite™ DF is a superior quality, hot-applied, polymer modified sealant which has the unique capability of being melted and heated to application temperatures in a **direct fired** or single walled melting kettle. It consists of a special blend of the highest quality virgin oils, resins, polymers, plasticizers, stabilizers and asphalt cement. **Crack-Rite™ DF** is furnished as a solid and forms an elastomeric, self-leveling seal at application temperatures. It is a low viscosity sealant which melts quickly and can be used in both asphalt and concrete pavements. When properly applied, it combines tenacious adhesive power with exceptional flexibility and resiliency. **Crack-Rite™ DF** provides a permanent seal against the infiltration of moisture or incompressibles through repeated thermal cycles of expansion and contraction. It exhibits superior low temperature ductility, weather resistance, low oxidation breakdown and hardening characteristics. The modifier system contained in **Crack-Rite™ DF** allows the material to withstand temperatures up to 550°F without experiencing degradation, tracking or bleeding.

PRODUCT USE

Crack-Rite™ DF is recommended for sealing cracks and joints in Portland Concrete and asphaltic cement pavements. It is primarily a maintenance sealant, highly recommended for sealing cracks in asphaltic pavement prior to coal tar sealing, slurry asphalt sealing, chip sealing and asphalt overlay. **Crack-Rite™ DF** has incredible flexibility and resiliency to create a permanent bond between asphalt to asphalt, asphalt to concrete and concrete to concrete.

PHYSICAL PROPERTIES TEST

RESULTS

	TEST
Cone penetration @ 77°F (25°C) 150g., 5S	35-45
Resilience @ 77°F (25°C) (ASTM D-3407)	70%
Flow @ 140°F (60°C)	0mm
Asphalt compatibility (ASTM D-3407)	pass
Softening point (ASTM D36) (99°C)	210°F
Elongation	1800%
Drying Time (Traffic ready)	20 Min

Weight per Gallon 9.2 lbs

CRACK AND JOINT PREPARATION

Existing

Remove all existing crack sealant, fillers, 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 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 broom, 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
- Sawing equipment

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

New Construction

Joints to be sealed must be clean and dry. 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

It is recommended that all cracks 1/4" and less should be routed to a minimum width of 1/2" and minimum depth of 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 over 3/4" in width shall be pre-filled with bituminous treated hemp, 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™ DF may be melted in **direct fired** or oil jacketed kettles equipped with thermometers to control sealant temperature within the recommended application range. The sealant must be agitated continuously during the melting and pouring process. **Crack-Rite™ DF** can be reheated several times to the application temperature range of 325° - 400°F, but it is recommended to add new blocks prior to the reheat process.

Material Temperature Recommendations

Crack-Rite™ DF will flow readily when heated to the following temperature range:

Recommended pouring temperature	325-400°F
Safe heating temperature	400°F (205°C)
Maximum heating temperature	550°F (274°C)

It is not recommended to heat sealant to more than 20°F below the safe heating temperature.

Material Limitations

Crack-Rite™ DF may experience degradation if sealant is heated for a long period of time over 550°F. Sealant will either become very thin or it will gel and become stringy. Degraded material should be removed immediately from melter and discarded in accordance with all Federal, State and Local Regulations. No crack sealing material shall be applied in wet cracks or where frost, snow or ice is present. The pavement temperature shall 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 cracks/joints.

Method of Application

Crack-Rite™ DF 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. Joint 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, sealant height should not exceed 1/8" above the pavement. Unless otherwise directed, the cracks shall be filled to refusal or not more than 1/8" below pavement surface. Care should be taken to minimize or eliminate lumps or unnecessary surplus of sealant on pavement.

Cure Time

Crack-Rite™ DF will exhibit no tracking within 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™ DF is packaged in 50 lb. split pack cartons. The 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

Weight per gallon = 9.2 lbs.

Sealant required per 100 lineal feet /11.5 lbs.

Commercial Industrial Crack & Joint Sealant

