

PRODUCT DESCRIPTION:

KOLD-FLO[®] pourable crack filler is a single-component, latex-modified asphalt emulsion. When applied according to manufacturer's directions, the material shall effectively adhere to concrete and asphalt surfaces providing an extension of the pavement life, by inhibiting moisture and debris (incompressibles) entry to pavement cracks.

APPLICATION:

KOLD-FLO pourable crack filler is ready-to-use from its supplied container requiring no additional components or heating. This material should be applied when the outside air temperature is 50°F or above with no chance of rain for at least 8 hours. Simply clean cracks of all dust, dirt, and loose material with a broom or compressed air and pour into 3/4ths of the length of the crack. Squeegee off any excess filling the remainder of the crack and leaving no material on the surface. If KOLD-FLO pourable crack filler is older than three months slight settling may occur; simply stir container from the bottom to a homogeneous consistency.

- Average Coverage Rates: ¼" x ¼" crack - 300 linear feet per gallon
 ½" x ½" crack - 70 linear feet per gallon
 1" x 1" crack - 30 linear feet per gallon

TRACKING CHARACTERISTICS:

KOLD-FLO pourable crack filler shall be dry to touch and exhibit no tracking within thirty minutes of application when applied according to manufacturer's directions. In cases of extreme humidity additional drying time may be needed. The material shall not require the use of any cover materials such as sand or slag to prevent tracking, although cover materials seem to enhance material performance.

SHELF LIFE:

KOLD-FLO pourable crack filler shall have a shelf life of six months minimum in its supplied container that is sealed and kept from freezing. Product should be stored above 40° F.

GENERAL PRODUCT DATA:

PROPERTY	AVERAGE	RANGE	TEST METHOD
Viscosity (77°F)(cP)	2500	1000 - 10,000	Modified Brookfield*
Residue (%)	67.5	66 - 70	ASTM D 2939 (sec.8)
Ash (%)	15	12 - 18	ASTM D 2939 (sec.10)
Pounds/Gallon	8.3	8.0 - 9.0	ASTM D 244
Flow (140°F) (mm)	0	5 max	ASTM D 1851
Particle Charge	anionic	anionic	ASTM D 244
Skin Test (minutes)	4	15 max	Skin Test*
Re-emulsification (sec)	125	70 - 180	Complex Wash-out Test*

* UNIQUE Paving Materials Corp. test methods attached.

SCOPE:

This method covers procedures for obtaining the saybolt furol viscosity at 77°F (25°C) of cold pourable asphalt emulsion crack fillers. Standard emulsified asphalts are routinely tested for consistency by way of saybolt furol viscosity. To prevent general run off and loss of material, the desired viscosity of cold pourable crack fillers is very thick and thixotropic which makes the standard saybolt furol equipment unsuitable. For the sake of comparison to other emulsified asphalts, the saybolt furol units are maintained through this modified test utilizing the Brookfield Model D Helipath Stand with any LV Series model Brookfield Laboratory Viscometer.

APPARATUS:

- Brookfield Model D Helipath Stand.
- Special laboratory stand with 4" rod extension and heavy base, and low mechanical stops.
- The T-bar spindle set, with chuck, closer, and weight assembly.
- Motor drive unit, which moves the viscometer/spindle up and down through test sample.
- Brookfield Lab Viscometer LV Series.
- Sample container: Bottle, Approximately 2.25" diameter by 2.5" high.
- Constant temperature bath, capable of maintaining a constant temperature of 77°F.
- Thermometer, ASTM No. 17°F or 17°C for tests at 77°F (25°C).

PRINCIPLES OF OPERATION:

The viscometer is placed into a clamp on the motor drive unit, which moves up and down on the upright rod at 7/8" per minute. Therefore the T-bar spindle always "cuts" through fresh material as it moves up and down through the test sample.

PREPARATION OF SAMPLE:

Stir the sample thoroughly without incorporating bubbles and pour it into a sample container 1/2" from the rim. Place the capped container in the water bath at 77°F for 30 minutes before testing.

TEST PROCEDURE:

1. The viscometer is mounted on the Helipath drive unit; both the viscometer and stand are leveled.
2. Mechanical stops on the stand are adjusted such that the spindle will travel approximately 2 inches (5 cm) into the test material, without striking the bottom, and return.
3. The sample is stirred with the thermometer 3 to 4 revolutions at approximately 1 revolution per second and placed under the spindle, with the spindle just above the surface.
4. The spindle speed is set to 12 rpm and a T-C or T-D spindle is mounted to the chuck.
5. The reversing rod is pressed to set the initial direction to down, and the viscometer and the Helipath are turned on. The Drive Unit direction will reverse when the reversing rod hits the lower mechanical stop.
6. The dial viscometer readings are recorded on every spindle revolution to record the viscosity profile.
7. The measurement is complete when the spindle clears the test material on the up stroke.

CALCULATIONS:

The average dial reading is taken from the viscosity profile and multiplied times the appropriate factor for the spindle utilized (a factor of 78 from the T-C and 156 from the T-D). This will give viscosity in centipoise.

- **Example:** Dial reading of 50 from the T-C spindle.
 $50 \times 78 = 3900 \text{ cps}$

APPLICABLE DOCUMENTS:

- ASTM Standards:
 - D 2161 Conversion of Kinematic Viscosity to Saybolt Universal Viscosity Or To Saybolt Furol Viscosity
 - D2170 Kinematic Viscosity of Asphalts (Bitumens)
- Brookfield Test Method For Model D Helipath Stand

KOLD-FLO[®] is a registered trademark of UNIQUE Paving Materials Corp.

"Providing valuable products from valuable people to valuable customers."

This document contains confidential proprietary and trade secret information of UNIQUE Paving Materials Corp., and copying, dissemination, or use by anyone other than UNIQUE's intended recipient is strictly prohibited by law.