

Area Reflective Crack Control Treatment Specifications

Description

The work will consist of furnishing all materials, equipment and labor and performing all operations for constructing Area Reflective Crack Control Treatment (ARCCT) or Strip Reflective Crack Control Treatment (SRCCT). ARCCT will be Reflective Crack Control System A (petromat or approved equal).

Surface Requirements

The surface on which reflective crack control will be applied must be clean and dry. All base failures will be repaired and all cracks, spalls, potholes or other depressions will be sealed with an approved crack sealer or filled with a mixture for cracks, joints and flangeways of standard specification and to the satisfaction of the Engineer before any crack control system is constructed.

Leveling Binder

The engineer will decide if the existing pavement surface cannot be rendered sufficiently smooth by crack sealing and patching. In this situation, to receive the reflective crack control system specified, a leveling binder must be placed prior to construction of the reflective crack control system. A leveling binder placed on top of any reflective crack control system shall be placed at a maximum temperature of 300 degrees Fahrenheit.

Preparation, Transportation, Placing and Compaction of Bituminous Mixtures

Bituminous binder course or surface course mixtures placed on top of any reflective crack control system will be placed at a mix temperature of 300 degrees Fahrenheit.

Reflective Crack Control System A Materials

The paving fabric will be a staple needle-punched, nonwoven polypropylene fabric having the following properties:

Weight (ASTM D 1910) oz./sq. yd., min.	3.6
Grab Tensile Strength (ASTM D 1682) %, min	90.0
Grab Elongation at Break (ASTM D 1682)% min-max	40-100
Asphalt Retention gals./sq. yd., min.	0.20

The asphalt binder will be 85/100 penetration asphalt cement.

Equipment

Mechanical laydown equipment will be capable of handling full rolls of fabric and will be capable of laying the fabric smoothly without excessive wrinkles and/or folds.

Stiff brush brooms to smooth the fabric and scissors to cut the fabric will be provided.

Construction Method

The area to be covered with fabric will be sprayed uniformly with asphalt binder at a rate of 0.22 to 0.25 gallons per square yard as directed by the engineer. Binder application will be accomplished with a pressure distributor for all surfaces except where there is no room to operate and hand spraying will be allowed. The width of the spray application is no more than six inches wider than the fabric width plus two inches. The binder will not be applied at a temperature greater than 325 degrees Fahrenheit. After the binder has been sprayed, the fabric will be unrolled or hand placed onto the binder with no delay. Every effort must be made to lay the fabric as smoothly as possible to avoid wrinkles. In no case will wrinkles large enough to cause laps of the fabric be permitted. Such wrinkles will be cut, laid out and flattened. The fabric will be broomed or squeegeed to remove air bubbles and make complete contact with the road surface.

The fabric will overlap the adjacent fabric panel a minimum of two inches. Additional binder will be applied to make the joints where overlap is greater than two inches. The transverse laps will be made in such a manner to avoid pickup by the paver. The direction of paving will be in the direction of the fabric placement. When placed as a strip treatment the strip will be 24 inches wide.

The installation of the fabric must be performed by an installer who has a minimum of one million square yards of documented installations and a minimum of three consecutive years of experience of installing paving fabrics.

Inspection Checklist of Paving Fabric

- Preliminary Work - Insure that sufficient quantities of paving fabric have been purchased for the project.
- Verify that paving fabric meets specification
- Store fabric in area protected from sun and water
- Determine the brand and grade of tack asphalt to be used, obtain a sample
- Check that tack rate to be used is approved by Agency and the fabric's manufacturer
- Preparation of old pavement
- Sweep surface clean
- Seal larger cracks, or place leveling course
- Tack-coat application
- Check tack-application rate and temperature
- Watch for poor tack-spread practices
 - Frequent stops and starts
 - Excessive spread overlaps
 - Nonuniform spread
- Fabric Laydown
- Watch for wrinkles, folds, and bubbles
- Prevent excessive overlaps
- Insure that fabric follows proper alignment
- If bleeding occurs, broadcast AC on fabric to prevent tires' sticking