

The penetration water repellent treatment solution shall not stain, discolor, or darken concrete. Application of the solution shall not alter the surface texture or form a coating on concrete surfaces and shall be compatible with the use of special surface finish texture coatings as specified. Treated concrete shall be surface dry within 30 minutes after application.

#### **822.02 TESTING.**

The treated concrete shall meet the following requirements:

##### **A. Absorption.**

<b>Test</b>	<b>Duration</b>	<b>Max. Absorption</b>	<b>Method</b>
Water Immersion	48 hrs.	1% by weight	ASTM C-642
	50 days	2% by weight	ASTM C-642

##### **B. Chloride Ion Penetration.**

<b>Test</b>	<b>Duration</b>	<b>Max. Absorption Cl-</b>	<b>Method</b>
Salt Water Ponding*	90 days	0.75 lb. per cu. yd. Depth: 1/2 inch to 1 inch	AASHTO T-259 AASHTO T-260

\*Based on non-abraded specimens.

## **SECTION 824 DAMPPROOFING AND WATERPROOFING**

#### **824.01 PRIMER.**

Primer for use with asphalt in dampproofing and waterproofing shall meet ASTM D 41.

#### **824.02 ASPHALT FOR DAMPPROOFING AND WATERPROOFING.**

Asphalt for dampproofing and waterproofing shall meet ASTM D 449.

#### **824.03 WOVEN COTTON FABRIC.**

Woven cotton fabric saturated with bituminous substances for use in waterproofing shall meet ASTM D 173.

#### **824.04 BLACK POLYETHYLENE MEMBRANE.**

Black Polyethylene Membrane shall be a black polyethylene sheeting 0.010 inch thick plus rubberized asphalt 0.060 inch thick for a total nominal thickness of 0.070 inch.

The exposed face of the rubberized asphalt shall have a removeable covering which shall remain on the membrane until it is ready to be placed.

- A. **Primer.** The primer to be used with black polyethylene membrane shall be a type recommended by the membrane manufacturer.
- B. **Joint Sealing Mastic.** The joint sealing mastic shall be a type recommended by the membrane manufacturer.

## **SECTION 826 JOINT MATERIALS**

### **826.01 GENERAL**

The crack sealant compound shall be packaged in sealed containers. Each container shall be clearly marked with the name of the manufacturer, the trade name of the sealant, the type of sealant, the weight, the manufacturer's batch and lot number, the pouring temperature, and the safe heating temperature.

The Contractor shall submit a sample of the sealant to the Materials and Research Division 3 weeks prior to being used on the Project. The sample shall be clearly marked with the Contractor's name and the Project number. Prior approval of any specific sealant material shall be required from the Materials and Research Division before it can be used on the Project.

A copy of the manufacturer's recommendations pertaining to the heating and application of the joint sealant material shall be submitted to the Engineer before the commencement of work. These recommendations shall be adhered to and followed by the Contractor. The temperature of the sealer in the field application equipment shall not exceed the safe heating temperature recommended by the manufacturer. Any given quantity of material shall not be heated at the pouring temperature for more than six hours and shall never be reheated. Material shall not be placed if the temperature is below the manufacturer's recommended minimum application temperature.

Mixing of different manufacturer's brands or different types of sealant shall be prohibited.

Sealant materials may be placed during a period of rising temperature after the air temperature in the shade and away from artificial heat has reached 40°F. and indications are for a continued rise in temperature. During a period of falling temperature, the placement of sealant material shall be suspended when the air temperature, in the shade and away from artificial heat, reaches 40°F. Sealants shall not be placed when the weather or roadbed conditions are unfavorable.

### **826.02 MATERIALS**

- A. **Hot Applied Joint Sealant.**