SECTION 729 – REVISED 7-25-13

## EXPANSION JOINT FILLER

**729.1 ~~PREMOLDED~~ PREFORMED JOINT FILLER:**

Expansion joint filler materials shall consist of ~~premolded~~ preformed strips of a durable resilient compound and comply with ASTM D1751, D1752, or D2628, as specified by the Contracting Agency or as approved by the Engineer.

**729.2 POUR TYPE JOINT FILLERS FOR PORTLAND CEMENT CONCRETE PAVING (PCCP):**

Pour type joint fillers shall comply with ASTM D3406 ~~D1850, D1190, D1854,~~ or ~~with the following formulation,~~ as ~~specified by the Contracting Agency~~ approved by the Engineer. Joint sealant shall not contain any coal- tar materials.

The following requirement shall be added to paragraphs 7.1 of ASTM D 3406:
The minimum ambient temperature during application and ambient temperatures under various storage conditions shall be clearly marked on the container.

~~Asphalt latex joint filler shall consist of asphalt latex emulsion and sodium fluosilicate furnished in separate containers and mixed on the site. The emulsion shall consist by volume of 60 parts AR-1000 asphalt conforming to the requirements of Section 711, 40 parts of synthetic latex, GRS-Type 4, and 5 to 10 parts of sodium fluosilicate, half strength. The emulsion and sodium fluosilicate shall not be mixed until the joint is ready to be filled. The amount of sodium fluosilicate to be mixed with the emulsion shall be approximately 3 to 5 percent by weight of the emulsion. The joint to be filled shall be thoroughly cleaned and surface dry.~~

~~The sealing compound shall consist of paving asphalt, Grade AR-1000 conforming to the provisions of Section 711, emulsified with rubber latex in the presence of a suitable emulsifying agent. Rubber latex designated as GRS-Type 4, or any other approved type, containing approximately 40 percent solids.~~

~~The resulting emulsion shall consist of a minimum of 55 percent of paving asphalt and a minimum of 36 percent of rubber latex and shall conform to the requirements set forth in Table 729-1.~~

~~**TABLE 729-1**~~

~~**ASPHALT-LATEX EMULSION JOINT SEALING COMPOUND**~~

| ~~**SPECIFICATION DESIGNATION**~~ | ~~**TEST METHOD**~~ | ~~**LIMITS**~~ | ~~**REMARKS**~~ |
|---|---|---|---|
| ~~Furol Viscosity at 77°F.~~ | ~~AASHTO T 72~~ | ~~50-250 seconds~~ | ~~Before adding gelling agent.~~ |
| ~~Sieve Test~~ | ~~AASHTO T 59~~ | ~~1% Max.~~ | ~~Before adding gelling agent.~~ |
| ~~Penetration at 77°F.~~ | ~~ASTM D217~~ | ~~50-250~~ | ~~The penetration test is made on a specimen prepared by stirring 5% of sodium fluosilicate into the asphalt latex emulsion in a 6 ounce deep ointment can. The specimen is then allowed to stand in the air at a temperature of 77°F. ±2° for a period of 30 minutes and is then penetrated with a grease cone under a total load of 150 grams.~~ |
| ~~Elasticity~~ | | ~~70% Min.~~ | ~~After addition of 5% of sodium fluosilicate and curing for 24 hours at 100°F.±2°, the specimen shall have an elastic recover of not less than 70%.~~ |
| ~~Dehydration~~ | | ~~Loss 30% maximum~~ | ~~Twenty-five grams of emulsion, prior to adding the gelling agent, is placed in an 8 ounce flat ointment can and dehydrated in a suitable oven maintained at a temperature of 200°F.±2° for a period of 24 hours.~~ |
| ~~Time of Set~~ | | ~~15-60 minutes~~ | ~~After mixing the emulsion with 1% to 4% by weight of powdered sodium fluosilicate the emulsion shall harden or develop a set in from 16 to 60 minutes, under field conditions.~~ |

**729.3 TEST REPORT AND SHIPMENT CERTIFICATE:**

Each shipment shall be accompanied by a certificate ~~in triplicate~~ from the supplier that the material will comply with the above specifications and such certificate shall be delivered to the Engineer. ~~The certificate shall show the shipment number for the entire lot of material contained in the shipment and shall also show a list which will enable the Engineer to identify each individual container by the supplier's batch number, with which each container shall be plainly marked.~~

~~**729.4 APPLICATION:**~~

~~At no time shall emulsion types be subjected to a temperature below 40°F. Prior to application, the material may be warmed, if necessary, to permit proper pouring of the joints. The method of heating shall be carefully controlled to avoid overheating of any part of the container or mixture and under no circumstances shall emulsions be heated to a temperature greater than 130°F.~~

~~Joints and cracks shall be thoroughly cleaned by hand or mechanical means immediately in advance of pouring the filler material. When new pavement has been cured by the Pigmented Sealing Compound Method, the joints and cracks shall be thoroughly scrubbed by means of a wire brush or a cloth mop saturated with gasoline or by other approved means.~~

~~All joints and cracks shall be surface dry before application of the joint sealer. No sealer shall be placed during unsuitable weather or when the atmospheric temperature is below 50°F., or when weather conditions indicate that the temperature may fall to 32°F within 24 hours.~~

~~The joints and cracks shall be filled in a neat and workmanlike manner by means of a cornucopia pot or other approved method.~~

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