

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|--|--|--|----------------------------------|----------------------|---|---|----------------|--|---|---|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| FOR DETAILS ON CONCRETE MIX DESIGNS, TESTS AND MATERIALS, SEE SECTION 901 OF THIS MANUAL. | | | | | | | | | | |
| ADHESIVE-LUBRICANT | For Preformed Elastomeric Compression Joint Seal | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment | 1 qt friction top can | ----- | 2,000 yd ² PCCP | 10 days | For Preformed Elastomeric Compression Joint Seal (AML) Mix well before sampling. Seal can tightly. For Preformed Polyurethane Foam Joint Seal - as recommended by manufacturer. |
| BOLSTER BLOCKS | Concrete | SEE SECTION 901 OF THIS MANUAL. (CLASS A STRUCTURAL OR PAVEMENT TYPE) | | | | | | | | |
| CONCRETE-CURED | Cores - Thickness & Compressive Strength | Accept. | Contractor/ Dist. Lab. TR 225 | Mat. Lab/ Dist. Lab. | 5/lot | 5 cores* | ----- | less than 2,000yd ² make cylinders an record depth measurements | dependent upon completion of lot & curing min. 3 days | *Contractor shall notify the Dist. Lab Engr. at least five (5) days prior to the start of coring operations. See "Application of Quality Assurance Specifications for Portland Cement Concrete Pavement and Structures" for details. For pavement plan thickness 10.0 inches (250 mm) or less, 4" diameter (nominal) cores may be used. |
| | Surface Tolerance | Quality Control | Contractor TR 644 | Contractor | Each wheel path, each lane, for length of project | | ----- | ----- | ----- | Contractor must furnish an approved inertial profiler and approved 10 ft metal static straightedge. To be tested as soon as concrete has hardened. |
| | | Accept. | Contractor/ Project Engr. TR 644 | Dist. Lab | Each wheel path, each lane, for length of project | | ----- | ----- | 2 days | Travel lane and associated pavement will be tested after quality control testing and corrective work completed by contractor. |
| | Tine Texturing | Accept. | Proj. Engr. TR 229 | Proj. Engr. | 2/lot* | | ----- | ----- | 1 day | *See DOTD TR 229. |
| CONCRETE-PLASTIC | Compressive Strength | Accept.* | Proj. Engr. S 301 TR 226 | Dist. Lab | 3 cyl/pour/ 100yd ³ max.** | 6 in. x 12 in. or 4 in. x 8 in. cylinder mold | ----- | ----- | 30 days | *For small quantity pavements and projects with less than 2000 yd ² . ** If used for curbs only, frequency is 3 cyl / 50 yd ³ . |
| | Early Strength Test | Info | Proj. Engr. S 301 TR 226 | Dist. Lab | 1 set of 3 cyl/location/ day | 6 in. x 12 in. or 4 in. x 8 in. cylinder mold | ----- | ----- | 1 day | *Used to determine early opening date for traffic or construction equipment. |
| | Thickness | Quality Control | Contractor | Contractor | * | ----- | ----- | ----- | ----- | *For small quantity pavements and projects with less than 2000 yd ² . |
| | | Accept. | Proj. Engr. | Proj. Engr. | * | ----- | ----- | ----- | 1 day | *For small quantity pavements and projects with less than 2000 yd ² . |
| CURING MATERIALS | Moist Cure Materials | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 36 in. x 36 in. | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. |
| CURING MATERIALS (Cond't) | Liquid Membrane Forming Compound | Prelim. Source Approval | Mfr. S 601 | Mat. Lab | 1/6 months | 1 qt friction top can | ----- | ----- | 21 days | (AML) |
| | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 1 qt friction top can | CC 1 | ----- | 10 days | (AML) *Visual inspection by Project Engr. Sample only if questionable. |

I-48 2/07

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT (Cont'd)

| MATERIAL | | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|----------------------------------|---|-------------------------|-------------------|-------------|--------------------------|---|-----------|-------------------------------|-----------------------|---|
| | | | METHOD | | | | CONTAINER | | | |
| EPOXY RESIN SYSTEMS | Type I, Grade-G Specified Type & Grade | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment | 1 qt each component friction top can or cartridge / tube system | CC 1 | 50 lin ft of joint | 11 days | (AML) Visual inspection by Proj. Engr. Sample only if questionable. |
| | | Verif. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment | 1 qt each component friction top can or cartridge / tube system | ---- | 1 gallon | 11 days | (AML) |
| GEOTEXTILE FABRIC | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/type/ source/ shipment | 3 lin ft/roll width of fabric* | CC 1 | 150 yd ² of fabric | 10 days | (AML) *Sample a minimum of 18 ft2. |
| JOINT FILLERS (Cond't) | Preformed Polyurethane Foam | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/5000 lin ft/ type | 36 in. length | ---- | 2,000 yd ² PCCP | 10 days | ---- |
| | Wood | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/5000 lin ft | 36 in. length | ---- | 2,000 yd ² PCCP | 10 days | ---- |
| JOINT FORMER/ SEALER | Preformed Joint Former/ Sealer | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/5000 lin ft | 6 ft length | ---- | 2,000 yd ² PCCP | 11 days | ---- |
| JOINT SEALANT (Extruded) | Silicone Polymer (single or two-component rapid cure) | Prelim. Source Approval | Dist. Lab S 611 | Mat. Lab | 1/batch or shipment | 1 gal friction top can | CA 7 | ---- | 30 days | (AML) |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment* | 1 gal friction top can | CD 1-&7 | 2,000 yd ² PCCP | 30 days | (AML) *Sample only if questionable. |
| | | Accept.* | Proj. Engr. S 611 | Mat. Lab | 1/batch or shipment | 1 gal friction top can | CA 7 | 2,000 yd ² PCCP | 30 days | (AML) *When material is not accompanied by a CD. |
| JOINT SEALANT (Hot Poured) | Rubberized Asphaltic Type | Prelim. Source Approval | Dist. Lab S 611 | Mat. Lab | 1/batch or shipment | one container | CA 7 | ---- | 11 days | (AML) |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment* | one container | CD 1-&7 | 2,000 yd ² PCCP | 11 days | |
| | | Accept.* | Proj. Engr. S 611 | Mat. Lab | 1/batch or shipment | one container | CA 7 | 2,000 yd ² PCCP | 11 days | (AML) *When material is not accompanied by a CD. |
| JOINT SEALANT (Backing Material) | Rods | Accept. | ---- | Mat. Lab | ---- | ---- | ---- | ---- | ---- | (AML) For use with polyurethane silicone polymer joint seals. Visual inspection by Proj. Engr. |
| | Rods (Heat Resistant) | Accept. | ---- | Mat. Lab | ---- | ---- | ---- | ---- | ---- | (AML) For use with Hot poured joint sealants. Visual inspection by Proj. Engr. |
| JOINT SEALANTS (Primer) | | Accept. | ---- | Proj. Engr. | ---- | ---- | ---- | ---- | ---- | (AML) For use with polyurethane and silicone polymers joint sealants. Visual inspection by Proj. Engr. |

1-50 2/07

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|---------------------------|----------------------------|---------|----------------------|----------|----------------------|-------------|---------|-------------------------------|---------|---|
| JOINT SEAL (Preformed) | Elastomeric Compression | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment | 8 ft length | CA 7 | 2,000 yd ² PCCP | 14 days | (AML) Proj. Engr. forwards CA with sample to Mat. Lab. |
| LIME | Hydrated | Accept. | ----- | Mat. Lab | 1/shipment | ----- | CD 1 | ----- | ----- | (AML) Visual inspection by Proj. Engr. |

SECTION 601 PORTLAND CEMENT CONCRETE PAVEMENT (Cont'd)

1-52 2/07

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|---|----------------------------------|------------|-------------------|-------------|--|-------------|----------------|----------------------------|--|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| LUBRICANT-ADHESIVE (added to previous entry) | | Accept. | --- | Proj. Engr. | --- | --- | --- | --- | (AML) For use with preformed polyurethane foam joint seal. Visual inspection by Proj. Engr. | |
| NON-SHRINK PATCHING SYSTEM | Non-Shrink Grout | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/source | 1 sack | ---- | 20 sacks | 16 days | (AML) Sample shall be submitted in an unbroken moisture proof sack. |
| REINFORCEMENT | Adhesive Anchor System | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type | ---- | ---- | 2,000 yd ² PCCP | 12 days | (AML) |
| | Dowel Bars | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/shipment | 2 bars * | ---- | 2,000 yd ² PCCP | 9 days | *For mechanical placement, only one dowel bar required. Basket assemblies checked for dimensional conformance by Proj. Engr. |
| | Mechanical Butt Splicing Devices | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/shipment 25 splices * | ---- | ---- | 2,000 yd ² PCCP | 9 days | (AML) * sampling may be reduced to 1 / size / 100 splices after the first 100 splices with acceptable results |
| | Tie Bars | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade/ 150,000lb/ source* | 2 bars | CA 1 | 2,000 yd ² PCCP | 9 days | *If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample if questionable. |
| TAR PAPER | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/source* | 2 ft x 2 ft | ---- | ---- | 9 days | For Bolster Blocks. *Visual inspection by Proj. Engr. Sample only if questionable. |

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION

1-54 2/07

| MATERIAL | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS | |
|--|------------------------------|-----------------|------------------------------------|-------------|---|--------|----------------|-----------------------|---------|--|
| | | METHOD | | | CONTAINER | DISTR. | | | | |
| FOR DETAILS ON CONCRETE MIX DESIGNS, TESTS AND MATERIALS, FLY ASH. SEE SECTION 901 OF THIS MANUAL. EACH REHABILITATION ITEM WILL SPECIFY THE SPECIFIC TYPE OF MATERIALS TO BE USED. | | | | | | | | | | |
| CONCRETE-CURED | Surface Tolerance (Grinding) | Quality Control | Contractor TR 644 | Contractor | Each wheel path, each lane, for length of project | ---- | ---- | ---- | ---- | Contractor must furnish an approved 25 ft profilograph or approved alternate. Tested prior to as well as after grinding. |
| | | Accept. | Contractor/ Dist. Lab TR 641 | Dist. Lab | Each wheel path, each lane, for length of project | ---- | ---- | ---- | 2 days | Travel lane will be evaluated after corrective work completed by contractor. |
| | | Accept. | Proj. Engr. | Proj. Engr. | * | ---- | ---- | ---- | 1 day | *For Cross Slope & Trans. Joints, PE shall test as needed. Contractor must furnish approved metal static straightedges. |
| | Surface Finish (Patching) | Quality Control | Contractor | Contractor | each patched area | ---- | ---- | ---- | ---- | Contractor must furnish an approved 10 ft metal static straightedge. To be tested as soon as concrete has hardened. |

| | | | | | | | | | | |
|--|--|---------|-------------|-------------|-------------------|------|------|------|-------|---|
| | | Accept. | Proj. Engr. | Proj. Engr. | each patched area | ---- | ---- | ---- | 1 day | Tested with approved 10 ft metal static straightedge. |
|--|--|---------|-------------|-------------|-------------------|------|------|------|-------|---|

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION (Cont.'d)

| MATERIAL | | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|----------------------------|--|-------------------------|--------------------------|-------------|---------------------|---|---------|---------------------------|-----------------------|---|
| | | | METHOD | | | CONTAINER | DISTR. | | | |
| | Tine Texturing (Patching) | Accept. | Proj. Engr. TR 229 | Proj. Engr. | each patched area* | ----- | ----- | ----- | 1 day | *Match texture of adjoining pavement. |
| | | Quality Control | Contractor TR 229 | Contractor | * | ----- | ----- | ----- | ----- | *Sufficient number of random checks to ensure the required texture depth is achieved. |
| CONCRETE-PLASTIC | Compressive Strength | Accept. | Proj. Engr. S 301/ TR226 | Dist. Lab | 6 cyl/lot * | 6 in. x 12 in. or 4 in. x 8 in. cylinder mold | ----- | ----- | 30 days | * If used for curbs only, frequency is 3 cyl / 50 yd3. |
| | Early Strength Test | Info | Proj. Engr. S 301 TR 226 | Dist. Lab | 3 cyl / lot | 6 in. x 12 in. or 4 in. x 8 in. cylinder mold | ----- | ----- | 1 day | *Used to determine early opening date for traffic or construction equipment. |
| CURING MATERIALS | Moist Cure Materials | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 36 in. x 36 in. | ----- | ----- | 10 days | *Visual inspection by Proj. Engr. Sample only if questionable. For cold weather protection. |
| CURING MATERIALS (Cont.'d) | Liquid Membrane Forming Compound | Prelim. Source Approval | Mfr. S 601 | Mat. Lab | 1/6 months | 1 qt friction top can | ----- | ----- | 21 days | (AML) |
| | | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/shipment* | 1 qt friction top can | CC 1 | ----- | 10 days | (AML) *Visual inspection by Proj. Engr. Sample only if questionable. |
| | | | | | | | | | | |
| EPOXY RESIN SYSTEMS | Type I Grade - as specified Specified Type & Grade | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/lot or shipment | 1 qt each component friction top can or cartridge / tube system | CC 1 | ----- | 11 days | (AML) Visual Inspection by Proj. Engr. Sample only if questionable. |
| | | Verif. | Proj. Engr. S 601 | | 1/lot or shipment | 1 qt each component friction top can or cartridge / tube system | ----- | 1 gallon | 11 days | (AML) |
| JOINT SEALANT (Extruded) | Silicone Sealant (Single Component) | Prelim Source Approval | Dist. Lab S 611 | Mat. Lab | 1/batch or shipment | 1 gal friction top can | CA 7 | ----- | 30 days | (AML) |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment* | 1 gal friction top can | CD 1-&7 | 2000 yd ² PCCP | 30 days | (AML) *Sample only if questionable. |
| | | Accept.* | Proj. Engr. S 611 | Mat. Lab | 1/batch or shipment | 1 gal friction top can | CA 7 | 2000 yd ² PCCP | 30 days | (AML) *When material is not accompanied by a CD. |

1-55 2/07

SECTION 602 PORTLAND CEMENT CONCRETE PAVEMENT REHABILITATION (Cont.'d)

| MATERIAL | | PURP. | SAMPLED BY | TESTED BY | MIN. FREQ. | MIN. QUANT. | CERT. | SMALL QUANTITY | TYPICAL HANDLING TIME | REMARKS |
|------------------------------------|---------------------------|-------------------------|--------------------|-----------------------|----------------------------------|--------------------------|---------|---------------------------|-----------------------|--|
| | | | METHOD | | | CONTAINER | DISTR. | | | |
| JOINT SEALANT (Hot Poured) | Rubberized Asphaltic Type | Prelim. Source Approval | Dist. Lab S 611 | Mat. Lab | 1/batch or shipment | one container | CA 7 | ---- | 11 days | (AML) |
| | | Accept. | Proj. Engr. S 611 | Mat. Lab | 1/shipment* | one container | CD 1-&7 | 2000 yd ² PCCP | 11 days | (AML) *Sample only if questionable. |
| | | Accept.* | Proj. Engr. S 611 | Mat. Lab | 1/batch or shipment | one container | CA 7 | 2000 yd ² PCCP | 11 days | (AML) *When material is not accompanied by a CD. |
| JOINT SEALANT (Backing Material) | Rods | Accept. | ---- | Mat. Lab | ---- | ---- | ---- | ---- | ---- | For use with polyurethane polymer (AML) and silicone polymer (AML) joint seals. Visual inspection by Proj. Engr. |
| | Rods (Heat Resistant) | Accept. | ---- | Proj. Engr. | ---- | ---- | ---- | ---- | ---- | (AML) For use with hot poured joint sealants. Visual inspection by Proj. Engr. |
| JOINT SEALANTS (Primer) | | Accept. | ---- | Proj. Engr. | ---- | ---- | ---- | ---- | ---- | (AML) For use with silicone polymers joint sealants. Visual inspection by Proj. Engr. |
| LOW-SHRINK PATCHING MATERIAL | Rapid Set | Accept. | Proj. Engr. S 601 | Mat. Lab | 1/source | 1 bag | CC 1 | ---- | ---- | (AML) For Dowel Bar retrofit 602.15(b). |
| | Compressive-Strength | Accept. | Proj. Engr. | Dist. Lab | 1 per 1st day production | 6 cubes | ---- | ---- | ---- | Tested at 3 and 25 hours. 1st set must be taken during 1st day production |
| | Compressive Strength | Design | Proj Engr. | Dist. Lab Mat. Lab | 1/source | 6 cubes | ---- | ---- | ---- | For preapproval of design. Tested at 3 and 24 hours. |
| | Compressive-Strength | Verif. | Proj. Engr. | Dist. Lab | 1/4 hours of production | 6 cubes | ---- | ---- | ---- | Tested at 3 and 24 hours-- |
| POWDERED AMMONIUM LIGNIN SULPHONAT | | Accept. | Proj. Engr. | Proj. Engr. | 1/lot or batch | ---- | CC 1 | ---- | ---- | For undersealing and slabjacking. |
| REINFORCEMENT | Adhesive Anchor Systems | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/type | ---- | ---- | ---- | 12 days | (AML) |
| | Dowel Bars | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/shipment | 2 bars* | ---- | ---- | 9 days | *For mechanical placement, only one dowel bar required. Basket assemblies checked for dimensional conformance by Proj. Engr. |
| | Tie Bars | Accept. | Proj. Engr. S 501 | Mat. Lab | 1/size/grade/150,000 lb/ source* | 2 bars | CA 1 | ---- | 9 days | *If listed on AML, material with a CA (Distr. 1) need not be sampled. Sample if questionable. |
| | Steel Fibers | Accept. | ---- | Mat. Lab* | 1/shipment | 1 qt can | CC* 1 | ---- | 10 days | *Visual inspected by Proj. Engr. Sample if questionable. |
| SLURRY | Time of Efflux | Accept. | Proj. Engr. TR 633 | Proj. Engr. | 1/half day | 3 gal suitable container | ---- | ---- | ---- | For undersealing and slabjacking. |

1-56 2/07