**PLANISEAL LVB**
**Low-Viscosity, Epoxy Healer/Sealer for Elevated Concrete Decks**

**SECTION 07 18 00**
**Traffic Coatings**

## PART 1 GENERAL

### 1.1 SUMMARY

A. Products for concrete protection and sealing.

### 1.2 RELATED SECTIONS

A. Section 03 30 00 – Cast-in-Place concrete
B. Section 03 40 00 – Pre-cast concrete

### 1.3 REFERENCES

A. ASTM International:
   A. ASTM C881 - Standard Specification for Epoxy-Resin-Base Bonding System for Concrete.

### 1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 - Administrative Requirements.

B. Product Data: Submit manufacturer's data sheets and safety data sheets (SDS) on each product to be used, including:
   A. Preparation instructions and recommendations.
   B. Storage and handling requirements and recommendations.
   C. Installation methods.

C. Samples: Submit samples of specified traffic deck system. Samples shall be construed as examples of finished color and texture of the system only.

D. Warranty: Submit copy of manufacturer’s standard warranty.

### 1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: Planiseal LVB, as supplied by MAPEI, is approved for use in this project.

B. Field Sample:
   A. Install a sizeable field sample at the discretion of the engineer of record (EOR).
   B. Apply material in accordance with manufacturer’s written application instructions.
   C. Field sample will be standard for judging color and texture on remainder of project.
   D. Maintain field sample during construction for workmanship comparison.
   E. Do not alter, move, or destroy field sample until work is completed and approved by owner’s representative.

C. Requirement of Regulatory Agencies: Comply with applicable codes, regulations, ordinances and laws regarding use and application of coating systems.

1.6 PRE-INSTALLATION MEETINGS

A. Convene at least two weeks prior to starting work of this section.

1.7 DELIVERY, STORAGE AND HANDLING

A. Deliver: Materials shall be delivered in original sealed containers, clearly marked with supplier's name, brand name, type of material and legible lot number.

B. Storage and Handling: Recommended material storage temperature is 75°F (24°C). Handle products to prevent damage to container.

1.8 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's recommended limits.

1.9 SEQUENCING

A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

**PART 2 PRODUCTS**

2.1 MANUFACTURER

A. Product Performance:

| | | |
|---|---|---|
| Viscosity at 77°F (25°C) – ASTM D2196 | | 55 cps |
| Total solids – ASTM D1644 | 77% | |
| Ash – ASTM D482 | | 0.3% |
| Filler content – ASTM C881 | | 0.0% |
| Tensile strength – ASTM C638 | | 185 psi (1.28 MPa) |
| Bond strength – ASTM C882 | | 80 psi (0.55 MPa) |
| Thermal compatibility – ASTM C884 | | Pass |
| Absorption – ASTM D570 | | 0.2% |
| Shrinkage – ASTM C883 | | Pass |

B. Acceptable Manufacturer:

MAPEI North America

1144 E. Newport Center Dr.; Deerfield Beach, FL 33442
Toll-Free for CRS Technical Services: Tel. 888-365-0614
Email: CRS@mapei.com
Web: www.mapei.com

C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

D. Substitutions: Not permitted.

2.2 POLYMER SEALER MATERIALS

A. Epoxy polymer sealer: Low-viscosity epoxy penetrating sealer and crack filler designed for penetrating and sealing cracks in exterior concrete traffic surfaces.

A. Product: Subject to compliance with requirements, provide MAPEI Corporation; Planiseal LVB.

B. Bond strength – 80 psi (0.55 MPa) when tested according to ASTM C88.

2.3 MIXES

A. General: Mix products in clean containers according to manufacturer's written instructions.

**PART 3 EXECUTION**

3.1 EXAMINATION

A. Fully cured and prepared concrete.

B. Concrete substrates must demonstrate a tensile pull strength exceeding 250 psi (1.72 MPa).

3.2 PREPARATION

A. Mechanically prepare to an International Concrete Repair Institute (ICRI) concrete surface profile (CSP) of #2 or greater.

B. Surface must be dry and free of frost.

C. Repair spalls, delaminations, potholes and cracks with a suitable MAPEI repair product before the application of Planiseal LVB.

D. Thoroughly clean the surface of substances that could affect the bond, including dirt, paint, tar, asphalt, wax, oil, grease, latex compounds, form release agents, laitance, loose toppings, foreign substances and any other residues.

3.3 MIXING

Before product use, take appropriate safety precautions. Refer to the Safety Data Sheet for details

A. Precondition Planiseal LVB to 65°F to 80°F (18°C to 26°C) before use.

B. Mechanically mix Part A with Part B at a 1:1 ratio by volume with an appropriate type of mixer and a slow-speed variable drill at 300 rpm for at least 3 minutes. Mix only full units.

3.4 INSTALLATION

Read all installation instructions thoroughly before installation.

A. Within 5 minutes after mixing, flood-coat Planiseal LVB onto the concrete.

B. Immediately distribute Planiseal LVB evenly and work it into the concrete for at least 5 minutes for maximum penetration. Continue to flood the product into cracks until refusal. Remove all excess material with a straight-bladder squeegee on smooth surfaces and a broom on textured surfaces. Surface should appear damp but with no buildup or ponding.

C. If Planiseal LVB is used as a primer; an ASTM C881 Type III epoxy should be applied within 60 minutes of application.

D. Broadcast oven-dried silica sand to refusal (typically 20 to 30 mesh) over all areas where material is applied. Allow the material to cure and then remove excess sand.

END OF SECTION