



PLANISEAL SLV HI-MOD
Super Low-Viscosity, High-Modulus, Epoxy Healer/Sealer

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:
 - 1. 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:
 - 1. Preparation instructions and recommendations.
 - 2. Storage and handling requirements and recommendations.
 - 3. 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 SLV, as supplied by MAPEI, is approved for use in this project.
- B. Field Sample:
 - 1. Install a sizeable field sample at the discretion of the engineer of record (EOR).
 - 2. Apply material in accordance with manufacturer's written application instructions.
 - 3. Field sample will be standard for judging color and texture on remainder of project.
 - 4. Maintain field sample during construction for workmanship comparison.
 - 5. 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 73°F (23°C) – ASTM D2196	80 - 120 cps
Solids content – ASTM D1644	100%
Tensile strength – ASTM C638 – at 7 days	> 10,000 psi (69.0 MPa)
Bond strength – ASTM C882 – at 2 days	> 1,000 psi (6.9 MPa)
Compressive strength at 7 days – ASTM D638	> 10,500 psi (72.4 MPa)
Bond strength at 14 days – ASTM C882	> 3,000 psi (20.7 MPa)
Flexural strength at 7 days – ASTM D790	> 9,000 psi (62.1 MPa)

- 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.
 - 1. Product: Subject to compliance with requirements, provide MAPEI Corporation; Planiseal SLV Hi-Mod.
 - 2. Bond strength – Not less than 3,000 psi (20.7 MPa) at 14 days when tested according to ASTM C882.

2.3 MIXES

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

PART 3 EXECUTION

3.1 PREPARATION

- 1. The surface must be dry and free of frost.
- 2. The concrete substrate must demonstrate a tensile pull strength exceeding 250 psi (1.72 MPa).
- 3. Repair spalls, delamination, potholes and cracks with a suitable MAPEI repair product before the application of Planiseal SLV Hi-Mod.
- 4. 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 that may interfere with proper penetration and bonding.
- 5. To enhance the proper penetration of Planiseal SLV Hi-Mod, the surface of the substrate must be mechanically prepared by engineer-approved methods in accordance with ICRI Guideline 310.2R-2013 to obtain a minimum concrete surface profile (CSP) of #2 to #4.

3.2 MIXING

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

- 1. Precondition material to a temperature between 65°F and 80°F (18°C and 26°C) before use.
- 2. Premix Part A (clear epoxy resin) and Part B (amber curing agent) independently for 1 minute with a low-speed drill and appropriate mixing paddle.
- 3. Combine Part B into Part A and mix with a low-speed drill for 3 minutes, taking precaution to not aerate the mixture.
- 4. Mix only the quantity that can be used within its gel time. See "Mixing ratio" in the chart on the TDS.

3.3 INSTALLATION

Read all installation instructions thoroughly before installation.

- A. Immediately after mixing Parts A and B together, flood-coat Planiseal SLV Hi-Mod onto the



concrete.

- B. Distribute Planiseal SLV Hi-Mod evenly by squeegee at a rate of 100 to 200 sq. ft. per U.S. gal. (2.45 to 4.91 m² per L).
- C. Keeping a wet edge, continue to flood Planiseal SLV Hi-Mod into cracks until refusal.
- D. Before Planiseal SLV Hi-Mod becomes tacky, remove all excess material with a squeegee (on a smooth surface) or a broom (on broom-textured or tined surface). The surface should appear damp but with no film buildup or ponding.
- E. Broadcast oven-dried silica sand to refusal (typically 20 to 30 mesh) at a rate of 0.2 to 0.8 lbs. per sq. yd. (0.11 to 0.43 kg per m²) over all areas where Planiseal SLV Hi-Mod is applied.
- F. If Planiseal LVB is used as a primer, an ASTM C881 Type III epoxy should be applied within 60 minutes of application.
- G. Remove all excess sand from the cured Planiseal SLV Hi-Mod before it is opened to traffic.

END OF SECTION