



Planiseal[®] SLV Hi-Mod

Super Low-Viscosity, High-Modulus, Epoxy Healer/Sealer



DESCRIPTION

Planiseal SLV Hi-Mod is a solvent-free, two-component, 100%-solids, super low-viscosity, epoxy healer/sealer designed to penetrate into new or worn cracked concrete surfaces. *Planiseal SLV Hi-Mod* seals hairline cracks against further moisture penetration and chloride intrusion.

FEATURES AND BENEFITS

- Super low viscosity that penetrates and fills the finest hairline cracks
- Impedes the intrusion of moisture and chlorides
- Solvent-free and low-odor
- Moisture-insensitive for sealing damp cracks

WHERE TO USE

- Elevated exterior concrete surfaces
- Bridges
- Pedestrian walkways and parking decks
- Use as a primer before application of an ASTM C881 Type III epoxy.

INDUSTRY STANDARDS AND APPROVALS

- ASTM C881 Types I, II, IV & V, Grade 1, Class C
- AASHTO M235 Types I, II, IV & V, Grade 1, Class C
- Available to be used in USDA- and CFIA-inspected facilities

SURFACE PREPARATION

- The surface must be dry and free of frost.

- The concrete substrate must demonstrate a tensile pull strength exceeding 250 psi (1.72 MPa).
- Repair surface spalls with a suitable MAPEI repair product before the application of *Planiseal SLV Hi-Mod*.
- 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.
- 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.

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 below.



PRODUCT APPLICATION

Read all installation instructions thoroughly before installation.

1. Immediately after mixing Parts A and B together, flood-coat *Planiseal SLV Hi-Mod* onto the concrete.
2. 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).
3. Keeping a wet edge, continue to flood *Planiseal SLV Hi-Mod* into cracks until refusal.
4. 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.
5. 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.
6. If *Planiseal SLV Hi-Mod* is used as a primer, an ASTM C881 Type III epoxy must be applied within 60 minutes of primer application.
7. Remove all excess sand from the cured *Planiseal SLV Hi-Mod* before it is opened to traffic.

CLEANUP

- Immediately clean tools with a suitable solvent such as Xylene before the material hardens. Cured material can only be removed mechanically.

LIMITATIONS

- Mix full units only.
- The substrate application temperature must be between 55°F and 95°F (13°C and 35°C).
- *Planiseal SLV Hi-Mod* is not UV-stable and may discolor when exposed to sunlight.
- Do not apply over curing compounds.
- Due to the super low viscosity of this material, it may penetrate through entire depth of crack. Precautions should be taken to protect areas below the deck.
- *Planiseal SLV Hi-Mod* must be sand-seeded when left exposed.
- Do not mix more material than can be applied within the stated working time.

Product Performance Properties – performed under normal laboratory conditions

Laboratory Tests	Results
VOCs (Rule #1168 of California's SCAQMD)	4 g per L
Gel time at 73°F (23°C)	90 to 110 minutes
Viscosity at 73°F (23°C) – ASTM D2196	80 to 120 cps
Solids content – ASTM D1644	100%
Tensile strength – ASTM D638	
7 days	> 10,000 psi (69.0 MPa)
Tensile elongation – ASTM D638	
7 days	1% to 5%
Bond strength – ASTM C882	
2 days	> 1,000 psi (6.90 MPa)
Compressive strength – ASTM D638	
7 days	> 10,500 psi (72.4 MPa)
Tensile modulus – ASTM D638	
7 days	300,000 psi (2 069 MPa)
Bond strength – ASTM C882	
14 days	> 3,000 psi (20.7 MPa)
Compressive modulus – ASTM D695	
7 days	380,000 psi (2 621 MPa)
Compressive strength – ASTM C109	
7 days, mortar (3 parts sand)	> 10,000 psi (69.0 MPa)
Flexural strength – ASTM D790	
7 days	> 9,000 psi (62.1 MPa)

Shelf Life and Application Properties

Shelf life	2 years in original, unopened container at 73°F (23°C). Store at 50°F to 80°F (10°C to 26°C).
Mixing ratio by volume (Part A : Part B)	4:1
Pot life at 73°F (23°C)	20 to 25 minutes for 1.25 U.S. gals. (4.73 L)
Tack-free time at 73°F (23°C)	4 to 6 hours
Curing time	~12 hours at 50°F (10°C) substrate temperature ~5 hours at 70°F (21°C) substrate temperature ~4 hours at 90°F (32°C) substrate temperature

CSI Division Classification

Traffic Coatings	07 18 00
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Packaging

Kit: 1.25 U.S. gals. (4.73 L) Part A: 1 U.S. gal. (3.79 L) Part B: 1 U.S. qt. (946 mL)
Pail, Part A: 4 U.S. gals. (15.1 L)
Pail, Part B: 1 U.S. gal. (3.79 L)

Approximate Coverage*

100 to 200 sq. ft. per U.S. gal. (2.45 to 4.91 m ² per L)
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* Coverage rate depends on profile and porosity of concrete.

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Refer to the SDS for specific data related to health and safety as well as product handling.

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