Sikadur®-31 Hi-Mod Gel LPL

PRODUCT DESCRIPTION
Sikadur®-31 Hi-Mod Gel LPL is a 2-component, 100% solids, moisture-insensitive, high-modulus, high-strength, structural epoxy paste adhesive. It conforms to the current ASTM C-881, Types I and IV, Grade-3, Class-C and AASHTO M-235 specifications.

USES
Sikadur®-31 Hi-Mod Gel LPL may only be used by experienced professionals.
- Structural bonding of concrete, masonry, metals, wood, etc. to a maximum glue line of 1/8 in. (3mm)
- Seals cracks and around injection ports prior to pressure-injection grouting
- Interior, vertical, and overhead repair of concrete as an epoxy mortar binder
- As a pick-proof sealant around windows, doors, lock-ups etc. inside correctional facilities

CHARACTERISTICS / ADVANTAGES
- Extended pot life
- Moisture-tolerant before, during, and after cure
- High-modulus, high-strength, structural paste adhesive
- Excellent adhesion to concrete, masonry, metals, wood, and most structural materials
- Paste consistency ideal for vertical and overhead applications
- Fast-setting and strength-producing adhesive
- Convenient easy mix ratio A:B = 2:1 by volume

PRODUCT INFORMATION

<table>
<thead>
<tr>
<th>Packaging</th>
<th>3 gal. (11 L) units</th>
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<tbody>
<tr>
<td>Color</td>
<td>Concrete gray</td>
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<tr>
<td>Shelf Life</td>
<td>24 months in original, unopened containers</td>
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<tr>
<td>Storage Conditions</td>
<td>Store dry at 40–95 °F (4–35 °C). Condition material to 65–75 °F (18–24 °C) before using.</td>
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<tr>
<td>Consistency</td>
<td>Non-sag paste</td>
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**TECHNICAL INFORMATION**

### Compressive Strength
- **36 hours**: 6,400 psi (41.4 MPa)
- **2 day**: 7,000 psi (41.4 MPa)
- **3 day**: 9,000 psi (48.3 MPa)

### Slant Shear Strength
- **2 days**: 2,000 psi (20.7 MPa)
- **14 day (moist cure)**: 2,300 psi (20.0 MPa)

### Heat Deflection Temperature
- **124 °F (51 °C)**
  - (7 days [fiber stress loading = 264 psi (1.8 MPa)])

**APPLICATION INFORMATION**

### Mixing Ratio
- Component ‘A’ : Component ‘B’ = 2:1 by volume

### Coverage
- 1 gal. yields 231 cu. in. of epoxy paste adhesive and grout. 1 gal. mixed with 1 gal. by loose volume of oven-dried aggregate yields approximately 346 cu. in. of epoxy mortar.

### Pot Life
- Approximately 120 minutes at 73 °F (23 °C) (gal., L volume)
- Approximately 60 minutes at 90 °F (32 °C) (gal., L volume)

### Cure Time
- **Tack-Free Time**: 6–8 hours

**APPLICATION INSTRUCTIONS**

### SUBSTRATE PREPARATION

Surface must be clean and sound. It may be dry or damp, but free of standing water. Remove dust, laitance, grease, curing compounds, impregnations, waxes, foreign particles, disintegrated materials and any other contaminants.

**Preparation Work**: Concrete - Sandblast or use other approved mechanical methods.

**Steel** - Blast clean or use other equivalent mechanical means to achieve a white metal finish.

### MIXING

**Pre-mix each component**: Proportion 1 part Component ‘B’ to 2 parts Component ‘A’ by volume into a clean pail. Mix thoroughly for 3 minutes with Sika paddle on low-speed (400–600 rpm) drill until uniform in color. Mix only that quantity that can be used within its pot life.

**To prepare an epoxy mortar**: Slowly add up to 1 part by loose volume of an oven-dried aggregate to 1 part of the mixed Sikadur®-31 Hi-Mod Gel LPL and mix until uniform in consistency.

### APPLICATION METHOD / TOOLS

**As a structural adhesive** - Apply the neat mixed Sikadur®-31 Hi-Mod Gel LPL, to the mating or nonmating prepared substrates. Work into the substrate for positive adhesion. Secure the bonded unit firmly into place until the adhesion has cured. Glue line should not exceed 1/8 in. (3 mm).

**To seal cracks for injection grouting** - Place the neat mixed material over the cracks to be pressure injected and around each injection port. Allow sufficient time to set before pressure injecting.

**For interior vertical and overhead patching** - Place the prepared mortar in void, working the material into the prepared substrate, filling the cavity. Strike off level. Lifts should not exceed 1 in. (25 mm).

**As a pick-proof sealant** - Use automated or manual method. Apply an appropriate size bead of material around the area being sealed. Seal with neat Sikadur®-31 Hi-Mod Gel LPL.

### LIMITATIONS

- Minimum substrate and ambient temperature 40 °F (4 °C).
- Do not thin. Addition of solvents will prevent proper cure.
- Use oven-dried aggregate only.
- Maximum epoxy mortar thickness is 1 in. (25 mm) per lift.
- Epoxy mortar is for interior use only. Material is a vapor barrier after cure.
- Minimum age of concrete must be 21–28 days, depending upon curing and drying conditions, for mortar applications.
- Porous substrates must be tested for moisture-vapor penetration.
transmission prior to mortar applications.
• Not for sealing cracks under hydrostatic pressure at the
time of application.
• Not an aesthetic product. Color may alter due to
variations in lighting and/or UV exposure.

BASIS OF PRODUCT DATA
Results may differ based upon statistical variations
depending upon mixing methods and equipment,
temperature, application methods, test methods, actual
site conditions and curing conditions.

OTHER RESTRICTIONS
See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY
For further information and advice regarding
transportation, handling, storage and disposal of
chemical products, user should refer to the actual Safety
Data Sheets containing physical, environmental,
toxicological and other safety related data. User must
read the current actual Safety Data Sheets before using
any products. In case of an emergency, call CHEMTREC
at 1-800-424-9300, International 703-527-3887.

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• KEEP OUT OF REACH OF CHILDREN
• NOT FOR INTERNAL CONSUMPTION
• FOR INDUSTRIAL USE ONLY
• FOR PROFESSIONAL USE ONLY

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