

## PRODUCT DATA SHEET

# Sikadur<sup>®</sup>-23 Lo-Mod Gel

Low-modulus, paste-consistency, epoxy resin binder

## PRODUCT DESCRIPTION

Sikadur<sup>®</sup>-23 Lo-Mod Gel, is a 2-component, 100 % solids, moisture-tolerant, low-modulus, non-sag paste-consistency, epoxy resin binder. It conforms to the current ASTM C-881 and AASHTO M-235 specifications.

## USES

Sikadur<sup>®</sup>-23 Lo-Mod Gel may only be used by experienced professionals.

- Use as a binder for epoxy mortar repairs
- As a pick-proof sealant around windows, doors, lock-ups, etc., inside correctional facilities, schools and institutions

## CHARACTERISTICS / ADVANTAGES

- Non-sag consistency
- Convenient easy to mix ratio A:B = 1:1 by volume
- Moisture-tolerant epoxy adhesive binder

## PRODUCT INFORMATION

<b>Packaging</b>	4 gal. (15 L) units
<b>Color</b>	Concrete gray
<b>Shelf Life</b>	24 months in original, unopened containers
<b>Storage Conditions</b>	Store dry at 40–95 °F (4–35 °C). Condition material to 65–75 °F (18–24 °C) before using.
<b>Consistency</b>	Non-sag paste

# TECHNICAL INFORMATION

## Compressive Strength

	Mortar 1:1		Neat		
	40 °F (4 °C)	73 °F (23 °C)	90 °F (32 °C)	73 °F (23 °C)	90 °F (32 °C)
8 hour	-	-	3,500 psi (24.1 MPa)	-	-
16 hour	-	3,300 psi (22.7 MPa)	5,600 psi (38.6 MPa)	120 psi (0.83 MPa)	960 psi (6.6 MPa)
1 day	-	4,500 psi (31.0 MPa)	5,700 psi (39.3 MPa)	1,300 psi (9.0 MPa)	1,600 psi (11.0 MPa)
3 day	100 psi (.69 MPa)	5,600 psi (38.6 MPa)	5,800 psi (40.0 MPa)	2,900 psi (20.0 MPa)	1,800 psi (12.4 MPa)
7 day	2,200 psi (15.2 MPa)	6,500 psi (44.8 MPa)	5,800 psi (40.0 MPa)	4,600 psi (31.7 MPa)	3,600 psi (24.8 MPa)
14 day	7,300 psi (50.3 MPa)	7,100 psi (48.9 MPa)	5,900 psi (40.7 MPa)	5,000 psi (34.5 MPa)	3,800 psi (26.2 MPa)
28 day	7,400 psi (51.0 MPa)	7,200 psi (49.6 MPa)	6,000 psi (41.4 MPa)	5,150 psi (35.5 MPa)	3,900 psi (26.9 MPa)

Cured and tested at the temperatures indicated and 50 % R.H.

<b>Modulus of Elasticity in Compression</b>	<b>28 day</b>	<b>Mortar 1:1</b> 4.0x10 <sup>5</sup> psi (2,758 MPa)	<b>Neat</b> 1.28x10 <sup>5</sup> psi (883 MPa)	(ASTM D-695) 73 °F (23 °C) 50 % R.H.
<b>Flexural Strength</b>	<b>14 day</b>	<b>Mortar 1:1</b> 3,900 psi (26.9 MPa)	<b>Neat</b> 4,800 psi (33 MPa)	(ASTM D-790) 73 °F (23 °C) 50 % R.H.
<b>Modulus of Elasticity in Flexure</b>	<b>14 day</b>	<b>Mortar 1:1</b> 6.8x10 <sup>5</sup> psi (4,668 MPa)	<b>Neat</b> 4.71x10 <sup>5</sup> psi (3,247 MPa)	(ASTM D-790) 73 °F (23 °C) 50 % R.H.
<b>Tensile Strength</b>	<b>14 day</b>	<b>Mortar 1:1</b> 2,400 psi (16.5 MPa)	<b>Neat</b> 2,000 psi (13.8 MPa)	(ASTM D-638) 73 °F (23 °C) 50 % R.H.
<b>Tensile Modulus of Elasticity</b>	<b>14 day</b>	<b>Mortar 1:1</b> 6.1x10 <sup>5</sup> psi (4,206 MPa)	<b>Neat</b> 3.23x10 <sup>5</sup> psi (2,227 MPa)	(ASTM D-638) 73 °F (23 °C) 50 % R.H.
<b>Elongation at Break</b>	<b>14 day</b>	<b>Mortar 1:1</b> 1.0 %	<b>Neat</b> 6.3 %	(ASTM D-638) 73 °F (23 °C) 50 % R.H.
<b>Shear Strength</b>	<b>14 day</b>	<b>Mortar 1:1</b> Mortar 1:1 3,300 psi (22.7 MPa)	<b>Neat</b> 3,000 psi (21 MPa)	(ASTM D-732) 73 °F (23 °C) 50 % R.H.
<b>Slant Shear Strength</b>	2 day (dry cure)	2,600 psi (17.9 MPa)		(ASTM C-882): Hardened concrete to hardened concrete 73 °F (23 °C) 50 % R.H.
	14 day (moist cure)	1,700 psi (11.7 MPa)		

<b>Heat Deflection Temperature</b>	14 day [fiber stress loading = 66 psi (0.46 MPa)]	102 °F (39 °C) (mortar 1:1)	(ASTM D-648)
<b>Water Absorption</b>	7 day (2 hour Boil)	Neat 0.4 %	(ASTM D-570) 73 °F (23 °C) 50 % R.H.

## APPLICATION INFORMATION

<b>Mixing Ratio</b>	Component 'A':Component 'B' = 1:1 by volume
<b>Pot Life</b>	Approximately 45 minutes. (200 gram mass)

## 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.

**Concrete** - Should be cleaned and prepared to achieve a laitance and contaminant free, open textured surface by blast cleaning or equivalent mechanical means.

**Steel** - Should be cleaned and prepared thoroughly by blast cleaning other equivalent mechanical means to a shiny metal finish.

### MIXING

**Pre-mix each component.** Proportion equal quantities by volume of Component 'A' and Component 'B' into a clean pail. Mix thoroughly for 3 minutes with a Sika paddle on a low-speed (400–600 rpm) drill until uniform in color. Slowly add up to 1 part by loose volume of an oven-dried aggregate to 1 part of mixed Sikadur®-23 Lo-Mod Gel, and mix until uniform in consistency. Mix only that quantity that can be used within its pot life.

### APPLICATION METHOD / TOOLS

**As a mortar** - Apply the Sikadur®-23 Lo-Mod Gel mortar using a trowel. Work material into surface. Fill void from deepest to shallowest area. Strike off level.

**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®-23 Lo-Mod Gel.

### LIMITATIONS

- Do not thin, solvents will prevent proper cure.
- Use only oven-dried aggregate.
- Minimum substrate and ambient temperature 40 °F (4 °C).
- Porous substrates must be tested for moisture-vapor transmission prior to application.
- Material is a vapor barrier after cure.
- Minimum age of concrete before application is 21–28

- days, depending on curing and drying conditions.
- Thickness in excess of 1/2 in. (13 mm) is not recommended in areas exposed to thermal change.
- Maximum thickness of 1.5 in./lift (38 mm/lift) for interior applications.
- 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.

## LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

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**Product Data Sheet**

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