



Sikadur[®] 23, Lo-Mod Gel

Low-modulus, paste-consistency, epoxy resin binder

DESCRIPTION

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

WHERE TO USE

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

ADVANTAGES

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

COVERAGE

1 gal. of mixed Sikadur 23, Lo-Mod Gel, when mixed with 1 part by loose volume of oven-dried aggregate, yields approximately 346 cu. in. of epoxy mortar.

PACKAGING

4-gal. units.

HOW TO USE

SURFACE 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.

Preparation Work

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

Steel - Should be cleaned and prepared thoroughly by blastcleaning.

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.

TYPICAL DATA FOR SIKADUR 23, LO-MOD GEL (Material and curing conditions @ 73F and 50% R.H.)			
SHELF LIFE	2 years in original, unopened containers.		
STORAGE CONDITIONS	Store dry at 40-95F (47-35C). Condition material to 65-75F (18-24C) before using.		
COLOR	Concrete gray.		
MIXING RATIO	Component 'A':Component 'B' = 1:1 by volume.		
CONSISTENCY	Non-sag paste.		
POT LIFE	Approximately 45 minutes. (200 gram mass)		
TENSILE PROPERTIES MORTAR 1:1 (ASTM D-638)		NEAT	
14 day	Tensile Strength	2,400 psi (16.5 MPa)	2,000 psi (13.8 MPa)
	Elongation at Break	1.0 %	6.3%
	Modulus of Elasticity	6.1 x 10 ⁵ psi	3.23 x 10 ⁵ psi
FLEXURAL PROPERTIES MORTAR 1:1 (ASTM D-790)			
14 day	Flexural Strength (Modulus of Rupture)	3,900 psi (26.9 MPa)	4,800 psi (33 MPa)
	Tangent Modulus of Elasticity in Bending	6.8 X 10 ⁵ psi	4.71 x 10 ⁵
SHEAR STRENGTH MORTAR 1:1 (ASTM D-732)			
14 day	Shear Strength	3,300 psi (22.7 MPa)	3,000 psi (21 MPa)
WATER ABSORPTION NEAT (ASTM D-570)			
7 day	Total Water Absorption (2 hour Boil)	0.4%	
DEFLECTION TEMPERATURE MORTAR 1:1 (ASTM D-648)			
14 day	Deflection Temperature (fiber stress loading = 66 psi)	102F	
BOND STRENGTH (ASTM C-882): Hardened concrete to hardened concrete			
2 day (dry cure)	Bond Strength	2,600 psi (17.9 MPa)	
14 day (moist cure)	Bond Strength	1,700 psi (11.7 MPa)	
COMPRESSIVE PROPERTIES MORTAR 1:1, (ASTM D-695)			
COMPRESSIVE STRENGTH, PSI		NEAT	
	40F*	73F*	NEAT 73F* 90F*
8 hour	-	-	3,500 (24.1 MPa)
16 hour	-	3,300 (22.7 MPa)	120 5,600 (38.6 MPa)
1 day	-	4,500 (31.0 MPa)	1,300 5,700 (39.3 MPa)
3 day	100 (.69 MPa)	5,600 (38.6 MPa)	2,900 5,800 (40.0 MPa)
7 day	2,200 (15.2 MPa)	6,500 (44.8 MPa)	4,600 5,800 (40.0 MPa)
14 day	7,300 (50.3 MPa)	7,100 (48.9 MPa)	5,000 5,900 (40.7 MPa)
28 day	7,400 (51.0 MPa)	7,200 (49.6 MPa)	5,150 6,000 (41.4 MPa)
MODULUS OF ELASTICITY, PSI			
28 days		4.0 x 10 ⁵	1.28 x 10 ⁵ psi

* Cured and tested at the temperatures indicated.

APPLICATION

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 40F.
- ▲ 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. is not recommended in areas exposed to thermal change.
- ▲ Maximum thickness of 1 1/2 in./lift for interior applications.

CAUTION

Component 'A' - Irritant; Sensitizer - Contains epoxy resin and crystalline silica (sand). Can cause skin sensitization after prolonged or repeated contact. Skin and eye irritant. High concentrations of vapor may cause respiratory irritation. If sanded, crystalline silica dust may be generated and may cause delayed lung injury (silicosis) and is listed as a suspect carcinogen by NTP and IARC (2A). Avoid skin contact. Use only with adequate ventilation. Use of safety goggles and chemical-resistant gloves is recommended. In case of exceedance of PELs, use an appropriate, properly fitted NIOSH/MSHA approved respirator. Remove contaminated clothing. Consult MSDS for more detailed information.

Component 'B' - Sensitizer - Contains amines and crystalline silica (sand). Contact with eyes or skin may cause severe burns. Skin and eye irritant. High concentrations of vapor may cause respiratory irritation. If sanded, crystalline silica may

cause delayed lung injury (silicosis) and is listed as a suspect carcinogen by NTP and IARC (2A). Avoid skin contact. Use only with adequate ventilation. Use of safety goggles and chemical-resistant gloves is recommended. In case of exceedance of PELs, use an appropriate, properly fitted NIOSH/MSHA approved respirator. Remove contaminated clothing. Consult MSDS for more detailed information.

FIRST AID

In case of skin contact, wash immediately and thoroughly with soap and water. For eye contact, flush immediately with plenty of water for at least 15 minutes; contact physician immediately. For respiratory problems, remove person to fresh air. Wash clothing before re-use.

CLEAN UP

Ventilate area. Confine spill. Collect with absorbent material. Dispose of in accordance with current, applicable local, state, and federal regulations. Uncured material can be removed with approved solvent. Cured material can only be removed mechanically.

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**KEEP CONTAINER TIGHTLY CLOSED
NOT FOR INTERNAL CONSUMPTION**

**KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY**

CONSULT MATERIAL SAFETY DATA SHEET FOR MORE INFORMATION

Sika warrants its products to be free from manufacturing defects and to meet Sika's current published properties when applied in accordance with Sika directions and tested in accordance with ASTM and Sika Standards. User determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product and excludes labor or the cost of labor. Any claim for breach of this warranty must be brought within one year of the date of purchase.

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