# Sikadur® 22 Lo-Mod NEW (AB)

Low-modulus, medium-viscosity, epoxy resin binder

Description	Sikadur® 22, Lo-Mod is a 2-component, 100% solids, moisture-tolerant, epoxy resin binder. It conforms to the current ASTM C-881, Type III, Grade-2, Class-C and AASHTO M-235 specifications.
Where to Use	Use neat as the binder resin for a skid-resistant broadcast overlay. Use also as the binder resin for epoxy mortar and concrete for patching and overlays.
Advantages	<ul> <li>■ Tolerant to moisture both before and after cure.</li> <li>■ Convenient easy mix ratio A:B = 1:1 by volume.</li> <li>■ Excellent strength development.</li> <li>■ Leveling viscosity for easy, efficient application of a broadcast overlay.</li> <li>■ Material is USDA-certifiable</li> </ul>
Coverage	1 gal. yields 231 cu. in. Mortar Binder - 1 gal. of mixed Sikadur® 22 Lo-Mod with the addition of 5 gal. by loose volume of an oven dried sand, yields approximately 808 cu. in. of epoxy mortar.
Packaging	4 gal. units

Typical Data (Material and curing conditions @ 73°F (23°C) and 50% R.H.)

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

Shelf Life: 2 years in original, unopened containers. **Storage Conditions:** Store dry at 40°-95°F (4°-35°C).

Condition material: 65°-85°F (18°-29°C) before using

Color: Clear to light amber.

Mixing Ratio: Component 'A':Component 'B' = 1:1 by volume.

VOC:

Viscosity: Approximately 2,000 cps.

Gel Time: Approximately 15-20 minutes. (60 gram mass; ASTM C881)

Tack-Free Time: 40°F (4°C) 73°F (23°C) 90°F (32°C) 8 hrs 2.5-3 hrs 2 hrs

**Traffic Time:** 24 hrs 3.5 hours 2.5 hrs

Tensile Properties (ASTM D-638) Mortar 1:3 Neat 7 day Tensile Strength 1200 2600 **Elongation at Break:** ~50% Shear Strength (ASTM D-732) Mortar 1:3 Neat 2600 3430 7 day Shear Strength

Water Absorption (ASTM D-570) Neat

7 day (24 hour immersion) <0.20%

Abrasion (Taber Abrader) Mortar 1:3 Neat

14 day Weight loss 1,000 cycles 2.0 grams 0.030 gms (H-22 wheel; 1,000 gm weight for mortar/C-17 wheel, 1,000 gm wt for neat)

Hardness (Shore D - ASTM D-2240) 72 **Chloride Permeability** 0 coulombs

Direct Pull Off Bond Test (ASTM C1583) Mortar

1 day >550 psi (concrete failure) >570 psi (concrete failure) Compressive Properties (ASTM D-695) Mortar 1:3

Thermal Compatibility (AST	Pass			
Compressive Strength, psi		40°F*(4°C)	73°F* (23°C)	90°F*(32C)
	3 hour	1800 psi	3600 psi	-
	8 hour	2000 psi	4400 psi	6400 psi
	1 day	4500 psi	6500 psi	8000 psi
	3 day	5500 psi	7500 psi	8500 psi
	7 day	8500 psi	8500 psi	9000 psi
	14 day	9000 psi	9000 psi	9000 psi
	28 day	9000 psi	9000 psi	9000 psi



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**Compressive Modulus** 

7 day 40,000 psi 40,000 psi 28 day

\* Material cured and tested at the temperatures indicated

# 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 and any other contaminants.

## **Preparation Work:**

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 or equivalent mechanical means to white metal finish.

# Mixing

Pre-mix each component. Take care as premixing of unfilled resins may entrain excessive air. Proportion equal parts by volume of Component 'A' and 'B' into clean pail. Mix thoroughly for 3 min. with Sika paddle on low-speed (400-600 rpm) drill until uniformly blended. Mix only that quantity that can be used within pot life.

To prepare epoxy mortar - Slowly add 5 parts by loose volume of oven-dried sand to 1 part of mixed Sikadur® 22 Lo-Mod until uniform in consistency.

#### **Application**

Broadcast Overlay - Prime the prepared substrate with Sikadur® 22 Lo-Mod. While primer is still tacky, spread mixed Sikadur® 22 Lo-Mod with a 3/16 in. notched squeegee. When material levels, broadcast the oven-dried aggregate slowly allowing it to settle in the epoxy binder. Ultimately the broadcast aggregate should be applied to excess at a rate of 2 lbs./ft² Remove excess broadcast aggregate after epoxy has set. Priming is an optional step in the broadcast overlay applications.

Epoxy Mortar - Prime prepared substrate with mixed Sikadur® 22 Lo-Mod or Sikadur® 21 Lo Mod LV. While primer is still tacky, apply epoxy mortar by trowel or vibrating screed. Finish with finishing trowel. Priming is mandatory when using the 22 Lo Mod as an epoxy mortar.

## Limitations

- Minimum substrate and ambient temperature 40°F (4°C).
- Porous substrates must be tested for moisture-vapor transmission prior to application. (Ref. ASTM D-4263)
- Minimum age of concrete before application is 21-28 days depending upon curing and drying conditions.
- Do not use on exterior slab on grade.
- Maximum thickness 1/2 in. (13 mm) exterior exposed to thermal change.
- Do not dilute. Addition of solvents will prevent proper cure.
- Use oven-dried aggregates only.
- Material is a vapor barrier after cure.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV expo

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