

Sikadur® Balcony System

Description	Sikadur Balcony System is a 2-component, moisture-tolerant, solvent free epoxy resin binder for slip resistant, seamless, protective overlay system, applied by the broadcast method. The Sikadur Balcony System uses Sikadur 21, Lo-Mod LV as the primer, Sikadur 22, Lo-Mod as the binder coat, and Sikalastic 748 PA as the sealer coat. The Sikadur Balcony System can be used with or without primer as needed. The Sikadur Balcony System conforms to the current ASTM C-881 and AASHTO M-235 specifications.
Where to Use	Use for interior or exterior, above grade application requiring a protective, decorative, abrasion- and slip-resistant overlay with long-term durability and performance.
Advantages	<ul style="list-style-type: none"> ■ System is moisture tolerant before, during and after cure. ■ Excellent adhesion to most substrates. ■ Convenient, easy mix A:B 1:1 ratio by volume for Sikadur 21 Lo-Mod LV and Sikadur 22 Lo-Mod. ■ Superior, long-term abrasion resistance and durability. ■ Easy care, slip-resistant overlay for balconies. ■ Can be combined with solid or blended colored aggregates for large color selection.
Coverage	Prime coat: 200-250 sq. ft./gal. Binder coat: 80-100 sq. ft./gal. (15-20 mils). Broadcast aggregate: 0.5 lbs./sq. ft. Sealer coat: 65-75 sq. ft./gal. Allowance must be made for surface profile, unavoidable variations in application thickness, loss and waste.
Packaging	Sikadur 21, Lo-Mod LV - 4 gal. units. Sikadur 22, Lo-Mod - 4 gal. units. Sikalastic 748 PA - 4 gal. units.
How to Use	
Surface Preparation	Surface must be clean, sound and dry. Remove dust, laitance, grease, curing compounds, impregnations, waxes, foreign particles and disintegrated materials or any bond breaking materials.

Typical Data [Material and curing conditions @ 73°F (23°C) and 100% 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 to 65°-85°F (18°-29°C) before using.		
Color	Depends on aggregate selection.		
Mixing Ratios	Component 'A': Component 'B' 1:1 by volume for Sikadur 21, Lo-Mod LV and Sikadur 22, Lo-Mod; Sikalastic 748 PA.		
	Sikadur 21, Lo-Mod LV	Sikadur 22, Lo-Mod	
Viscosity (Mixed)	1,000 cps	2,500 cps	
Pot Life (200 g mass)	25 min.	30 min.	
Tack-Free Time	3 hrs.	4 hrs.	
Open Time	Light foot traffic: 24 hrs. after final sealer coat.		
Compressive properties of Sikadur 22 (ASTM D-695)			
Compressive Strength, psi (MPa)	Broadcast (1:2.25)		
	40°F* (4°C)	73°F* (23°C)	90°F* (32°C)
8 hour	-	70 (0.48)	3,500 (24.1)
16 hour	-	1,850 (12.8)	4,400 (30.3)
1 day	60 (0.41)	3,150 (21.7)	4,600 (31.7)
3 day	1,700 (11.7)	6,900 (47.6)	5,000 (34.5)
7 day	6,700 (46.2)	7,500 (51.7)	5,400 (37.2)
14 day	8,400 (58.0)	7,800 (53.8)	5,900 (40.7)
28 day	8,450 (58.3)	7,850 (54.1)	6,300 (43.4)

*Material cured and tested at the temperatures indicated.

Compressive Modulus **7 day:** 1.25 x 10⁵ psi (862 MPa) **28 day:** 1.66 x 10⁵ psi (1,145 MPa)

Tensile Properties of Sikadur 22, Lo-Mod (ASTM D-638)

14 day	Tensile Strength	2,200 psi (15.2 MPa)
	Elongation at Break	1.1%
	Modulus of Elasticity	4.7 x 10 ⁵ psi (3,240 MPa)

Flexural Properties of Sikadur 22, Lo-Mod (ASTM D-790)

14 day	Flexural Strength (Modulus of Rupture)	4,300 psi (29.7 MPa)
	Tangent Modulus of Elasticity in Bending	9.0 x 10 ⁵ psi (6,205 MPa)

Shear Strength (ASTM D-732) 14 day 3,300 psi (22.8 MPa)

Bond Strength (ASTM C-882) Hardened Concrete to Hardened Concrete

2 day (dry cure)	1,100 psi (7.5 MPa)
14 day (moist cure)	1,600 psi (11.0 MPa)

Abrasion (Taber Abrader) (H-22 wheel; 1,000 gm weight)

14 day	Weight loss, 1,000 cycles	1.61 gm
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Water Absorption Neat (ASTM D-570)

14 day	(24 hour immersion)	0.23%
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Preparation Work: Concrete-Should be cleaned and prepared to achieve a laitance and contaminant-free, open textured surface by blastcleaning or equivalent mechanical means. All projections, rough spots, etc. should be repaired to achieve a uniform surface prior to the application. Surface should be level for best cosmetic finish.

Mixing **Sikadur 21 Lo-Mod LV & Sikadur 22 Lo-Mod:** Pre-mix each component. Proportion equal parts by volume of Component 'A' and 'B' into a clean mixing container. Mix with a low-speed (400-600 rpm) drill and Sika paddle for 3 minutes, until uniform. Mix only that quantity that can be used within its pot life. Do not whip in air during mixing.

Application **Priming:** Use of primer is optional but highly recommended. Primer should be used where sealing of non-moving existing cracks is desired.

Prime the prepared substrate with neat Sikadur 21, Lo-Mod LV, using a roller. Coverage should be 200-250 sq. ft./gal. While the primer is still tacky, apply the binder material with a roller to approximately 80-100 sq. ft./gal. (15-20 mils) or to desired thickness.

Cracks: Static (non-moving) cracks $\leq 1/8$ in. wide gravity feed with an appropriate sealer/healer material. Dynamic cracks $\geq 1/8$ in. should be treated as joints and sealed with appropriate joint sealant.

Broadcast: Slowly broadcast oven-dried colored aggregate* so that the sand falls vertically and uniformly into the binder coat (at a rate of 0.5 lbs./sf). (**Sources of aggregate must conform to Sika requirements for broadcast aggregate; please contact our Technical Service Department.**) (Broadcast Quartz Blends from Sika can also be considered.) Continue to broadcast lightly making several passes, allowing the binder to bleed through the sand before making next pass. Cover completely with sand before binder becomes tack-free.

*Typical Gradation

Mesh	20	30	40	50	70
%	9	12.4	54	22	1.9

After broadcast system has reached sufficient cure as not to be damaged (this will be dependent on material, air, and substrate temperatures), remove excess sand. **Seal Coat:** After all excess sand has been removed apply a roller seal coat of Sikalastic 748 PA** over the entire area. Care should be exercised to eliminate voids or bare spots. Sealer coat of Sikalastic 748 PA may be applied at recommended coverage (75-125 sq. ft./gal.) or to desired finish; remove all excess with a clean, dry roller. Heavy seal coat will produce smoother but less slip resistant system. The type and size of the aggregate will influence the coverage.

**Aliphatic urethanes or other compatible sealer coats may be used. Please contact Sika's Technical Service Department before use. Refer to the current Technical Data Sheet for Sikalastic 748 PA for additional application information.

Limitations

- Minimum substrate temperature for application is 40°F (4°C) and rising.
- Do not apply over wet or damp surfaces.
- Material is a vapor barrier after cure.
- Do not apply to porous surfaces exhibiting moisture-vapor transmission during the application. Consult Technical Service.
- Minimum age of concrete prior to application is 21-28 days, depending on curing and drying conditions.
- Refer to the current individual product Technical Data Sheets for Sikadur 21, Lo-Mod LV, Sikadur 22 Lo-Mod and Sikalastic 748 PA for application and use warnings.
- Do not apply to exterior, on-grade substrates.
- Use oven-dried, broadcast aggregate only.
- Do not thin with solvents.
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure.

Caution Irritant **Component 'A' - Irritant** - Prolonged contact with skin may cause irritation. Avoid eye contact. **Component 'B' - Corrosive** - Contact with skin may cause severe burns. avoid eye contact. Product is a strong sensitizer. Use of safety goggles and chemical-resistant gloves recommended. Remove contaminated clothing. Avoid breathing vapors. Use adequate ventilation. Use of an NIOSH organic vapor respirator recommended.

First Aid **Eyes:** Hold eyelids apart and flush thoroughly with water for 15 minutes. **Skin:** Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and water. **Inhalation:** Remove person to fresh air. **Ingestion:** Do not induce vomiting. **In all cases, contact a physician immediately if symptoms persist.**

Clean Up Collect with absorbent material; flush area with water. 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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