



PRODUCT DATA SHEET

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CSC Master Format™ 07 18 00
TRAFFIC COATINGS

Sikadur®-22 Lo-Mod FS

LOW-MODULUS, FAST SETTING, MEDIUM-VISCOSITY, EPOXY RESIN BINDER

Description	Sikadur®-22 Lo-Mod FS is a two-component, 100 % solids, moisture-tolerant, fast setting epoxy resin binder. It conforms to the current ASTM C881 and AASHTO M 235 specifications.
Where to Use	<ul style="list-style-type: none"> As a binder resin for skid-resistant parking deck or bridge deck broadcast overlay systems Incorporated as an extra heavy-duty wear layer in the Sikalastic®-3900 parking deck membrane system As a binder resin mixed with aggregates as an epoxy mortar for concrete patching and overlays
Advantages	<ul style="list-style-type: none"> Fast setting for quick turn around Enhanced wear and durability when used with traprock #9 (Sikadur®-229) or traprock #8 aggregate Can be installed independently or over Sikalastic 390®-Membrane as an extra heavy-duty wear course as a part of the Sikalastic®-3900 system Tolerant to moisture both before and after cure Convenient easy mix ratio, A:B = 1:1 by volume Excellent strength development Leveling viscosity for easy, efficient application of a broadcast overlay Successfully used in HFST (High Friction Surface Treatment) applications. Refer to local DOT specifications for product acceptance

Technical Data

Packaging	15,14 L - Communicate with Sika Canada for other packaging solutions available.		
Colour	Clear to light amber		
Yield	1 L = 1 m ² of epoxy binder at 1 mm thickness (40 mil)		
	Mortar binder : 1 L of mixed Sikadur®-22 Lo-Mod FS with the addition of 5 L by loose volume of oven-dried sand will provide 0.0034 m ³ (3.4 L)		
Shelf Life	2 years in original, unopened containers. Store dry at temperatures between 4 and 35 °C (40 and 95 °F). Condition product between 18 and 29 °C (65 and 85 °F) before using.		
Mixing Ratio	A:B = 1:1 by volume		
	4 °C (40 °F)*	23 °C (73 °F)*	32 °C (90 °F)*
Tack-Free Time	150 min	85 min	75 min
Traffic Time	8 h	3 h	2 h
Properties at 23 °C (73 °F) and 50 % R.H.			
Viscosity	2000 cps		
Gel Time / Pot Life	Approximately 15-20 minutes. (60 gram mass; ASTM C881)		
Tensile Properties ASTM D638, MPa (psi)	Mortar 1 : 3	Neat	
7 days	8.3 (1,203)	18.3 (2,653)	
Elongation at Break	40 %	55 %	
Shear Strength ASTM D732, MPa (psi)			
7 days	17.9 (2,595)	23.6 (3,422)	
Water Absorption ASTM D570			
7 day (24 hour immersion)	-	< 0.20 %	
Abrasion (Taber Abrader)			
14 day Weight loss, 1,000 cycles, grams (H-22 wheel, 1000 g weight for mortar/ C-17 wheel, 1000 g weight for neat)	2.0	0.030	
Hardness ASTM D2240 Shore D	-	72	
Rapid Chloride Permeability ASTM C1202/ AASHTO T 277	-	0 coulomb	
Tensile Bond Strength ASTM C1583, MPa (psi)			
1 day	-	3.8 (551) - concrete failure	
7 days	-	3.9 (565) - concrete failure	
Thermal Compatibility ASTM C884	-	Pass	

Compressive Strength ASTM C579, MPa (psi)	4 °C (40 °F)*	23 °C (73 °F)*	32 °C (90 °F)*
3 h	-	12.1 (1,750)	24.8 (3,600)
8 h	13.8 (2,000)	30.3 (4,400)	44.1 (6,400)
1 day	31 (4,500)	44.8 (6,500)	55.2 (8,000)
3 days	37.9 (5,500)	51.7 (7,500)	58.6 (8,500)
7 days	58.6 (8,500)	58.6 (8,500)	62 (9,000)
14 days	62 (9,000)	62 (9,000)	62 (9,000)
28 days	62 (9,000)	62 (9,000)	62 (9,000)
Compressive Modulus ASTM D695, MPa (psi)			
7 days	275 (39,875)		
28 days	275 (39,875)		
VOC Content	< 20 g/L		
Chemical Resistance	Contact Sika Canada		
* Material cured and tested at the temperatures indicated.			
<i>Product properties are typically averages, obtained under laboratory conditions. Reasonable variations can be expected on-site due to local factors, including environment, preparation, application, curing and test methods</i>			

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.

Concrete:

Should be cleaned and prepared to achieve a laitance- and contaminant-free, open-textured surface by blastcleaning or equivalent mechanical means (CSP-3, minimum).

Steel:

Should be cleaned and prepared thoroughly by blastcleaning to white metal finish (SP-10).

Mixing

Pre-mix each component of Sikadur®-22 Lo-Mod FS separately. Empty component B in the correct mix ratio into the component A container. Mix the combined components for three (3) minutes, using a low-speed drill (300 - 450 rpm) to minimize entrapping air. Use a *Jiffy*® or *Exomixer*® type mixing paddle (recommended model) suited to the volume of the mixing container. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once, to ensure complete mixing. When completely mixed, Sikadur®-22 Lo-Mod FS should be uniform in colour and consistency.

Mix only that quantity which can be used within its pot life.

To prepare epoxy mortar :

Slowly add five (5) parts by loose volume of oven-dried sand to one (1) part of mixed A and B component (binder).

Application

Broadcast Overlay:

Apply mixed Sikadur®-22 Lo-Mod FS with a 5 mm (3/16 in.) notched squeegee at a rate of 0.8 – 1.0 m²/L (32 – 40 ft²/US gal.), 40 – 50 mil w.f.t./d.f.t. by calculation. When material levels, broadcast immediately with Sikadur®-229, slowly allowing it to settle in the epoxy binder (consult with Sika Canada for alternate aggregate type and granulometry). Broadcast aggregate to excess (dry appearance, no wet spots). Carefully remove loose aggregate when binder sets sufficiently to accept foot traffic. Repeat application for second layer. Contact Sika Canada for recommendations on priming and leveling excessively porous or uneven surfaces.

Extra Heavy-Duty Wear Layer in Sikalastic®-3900 System:

Apply Sikadur®-22 Lo-Mod FS onto cured Sikalastic®-390 Membrane (within re-coat window). Spread mixed Sikadur®-22 Lo-Mod FS with a 5 mm (3/16 in) notched squeegee at a rate of 0.8 – 1.0 m²/L (32 – 40 ft²/US gal.), 40 – 50 mil w.f.t./d.f.t. by calculation. When material levels, broadcast immediately with Sikadur®-229, slowly allowing it to settle in the epoxy binder (consult with Sika Canada for alternate aggregate type and granulometry). Broadcast aggregate to excess (dry appearance, no wet spots). Carefully remove loose aggregate when binder sets sufficiently to accept foot traffic. Repeat application for optional second layer

Epoxy Mortar:

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

Clean Up

Collect with absorbent material. Dispose of in accordance with local disposal regulations. Uncured material can be removed with Sika® Epoxy Cleaner. Cured material can only be removed mechanically.

Limitations

- Substrate and ambient temperature : minimum 4 °C (40 °F) / maximum 35 °C (95 °F).
- Porous substrates must be tested for moisture-vapour transmission prior to applications (Ref. ASTM D4263).
- Minimum age of concrete must be between 21 and 28 days, depending upon curing and drying conditions.
- Maximum thickness: 13 mm (1/2 in) exterior exposed to thermal change.
- Do not dilute: Addition of solvents will prevent proper cure.
- Use oven-dried aggregate only.
- Material is a vapour barrier after cure.
- Not an aesthetic product. Colour may alter due to variations in lighting and/or UV exposure.
- For HFST (High Friction Surface Treatment) applications, system and application details are governed by local DOT & AASHTO specification.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent SAFETY DATA SHEET containing physical, ecological, toxicological and other safety-related data.

KEEP OUT OF REACH OF CHILDREN
FOR INDUSTRIAL USE ONLY

The Information, and in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions, within their shelflife. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any recommendations, or from any other advice offered. The information contained herein does not relieve the user of the products from testing them for the intended application and purpose. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request or may be downloaded from our website at: www.sika.ca

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