BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-33

High-modulus, high-strength, structural, very rapid-curing epoxy, smooth-paste adhesive

PRODUCT DESCRIPTION

Sikadur 33 is a 2-component, 100 % solids, moisture-tolerant, high-modulus, high-strength, structural, smooth-paste epoxy adhesive. It conforms to the current ASTM C-881, Types I and II, Grade-3, Class B/C* and AASHTO M-235 specifications.
*except for gel time

USES

Use to seal cracks and to secure injection ports in structural concrete and wood trusses prior to pressure-injection grouting.

CHARACTERISTICS / ADVANTAGES

- New smooth-paste consistency for vertical, horizontal and overhead crack sealing.
- Very rapid curing, even in thin film, for faster pressure-injection grouting.
- Injection may proceed as soon as 1 hour after application.

PRODUCT INFORMATION

Packaging	3 gallon (11 L) unit	
Color	Concrete gray	
Shelf Life	2 years in original, unopened containers	
Storage Conditions	Store dry at 40–95 °F (4–35 °C). Condition material to 65–75 °F (18–24 °C) before using.	
Consistency	Smooth-paste adhesive	
Water Absorption	0.36 % (7 days, 24 hour immersion)	(ASTM D-570)

TECHNICAL INFORMATION

Compressive Strength (ASTM D-695)

	40 °F (4 °C)	73 °F (23 °C)	90 °F (32 °C)
1 hour	30 psi (0.20 MPa)	5,600 psi (38.6 MPa)	4,600 psi (31.7 MPa)
2 hour	1,800 psi (12.4 MPa)	6,700 psi (46.2 MPa)	5,600 psi (38.6 MPa)
4 hour	3,500 psi (24.1 MPa)	7,800 psi (53.7 MPa)	5,700 psi (39.3 MPa)
8 hour	6,300 psi (43.4 MPa)	8,200 psi (56.5 MPa)	6,600 psi (45.5 MPa)
16 hour	6,900 psi (47.5 MPa)	8,500 psi (58.6 MPa)	7,100 psi (48.9 MPa)
1 day	7,400 psi (51 MPa)	8,600 psi (59.3 MPa)	7,300 psi (50.3 MPa)
3 day	7,900 psi (54.4 MPa)	9,000 psi (62 MPa)	7,600 psi (52.4 MPa)
7 day	8,300 psi (57.2 MPa)	9,200 psi (63.4 MPa)	7,800 psi (53.7 MPa)
14 day	8,500 psi (58.6 MPa)	9,200 psi (63.4 MPa)	8,100 psi (55.8 MPa)
28 day	8,600 psi (59.3 MPa)	9,400 psi (64.8 MPa)	8,300 psi (57.2 MPa)

Material cured and tested at the temperatures indicated and 50 % R.H.

Modulus of Elasticity in Compression	9.6 X 10^5 psi (6,600 MPa) (28 day)	(ASTM D-695)
Flexural Strength	4,800 psi (33.1 MPa) (1 day)	(ASTM D-790) 73 °F (23 °C) 50 % R.H.
Modulus of Elasticity in Flexure	1.2 X 10 pis (8,300 MPa) (1 day)	(ASTM D-790) 73 °F (23 °C) 50 % R.H.
Tensile Strength	3,300 psi (22.7 MPa) (1 day)	(ASTM D-638) 73 °F (23 °C) 50 % R.H.
Tensile Modulus of Elasticity	8.3 X 10^5 psi (5,700 MPa) (1 day)	(ASTM D-638) 73 °F (23 °C) 50 % R.H.
Elongation at Break	0.2 % (1 day)	(ASTM D-638) 73 °F (23 °C) 50 % R.H.
Shear Strength	2,200 psi (15.2 MPa) (1 day)	(ASTM D-732) 73 °F (23 °C) 50 % R.H.
Heat Deflection Temperature	120°F (49°C) (1 day) [fiber stress loading = 264 psi (1.8 MPa)]	(ASTM D-648)

APPLICATION INFORMATION

Mixing Ratio	Component A : component B = 1 : 1 by volume
Coverage	1 gal. yields 231 cu. in. of paste adhesive
Pot Life	Approximately 15 minutes. (60 gram mass)

Cure Time	Tack-Free Time		
	40 °F (4 °C)*	73 °F (23 °C)*	90 °F (32 °C)*
	1.5–1.75 h	25–30 min	20–25 min

* Material cured and tested at the temperatures indicated.

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 and any other contaminants.
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.

MIXING

Pre-mix each component. Proportion equal parts by volume of Component 'B' and Component 'A' into a clean pail. Mix thoroughly for 3 minutes with Sika paddle on low-speed (400–600 rpm) drill until uniform in color. Mix only that quantity that can used within its pot life.

APPLICATION METHOD / TOOLS

To seal injection ports and cracks for injection grouting - Place the neat mixed material over the cracks to be pressure-injected and around each injection port. Allow sufficient time to set before pressure injecting. Use Sikadur® 35, Hi-Mod LV, or Sikadur® 52 for the low viscosity injection adhesive. Consult technical data sheets on these products for more information. Also, contact Technical Service (1.800.933. SIKA) for additional information on pressure injection grouting.

Removal

Uncured material can be removed with approved solvent (Xylene, M.E.K., Acetone, etc.). Strictly follow solvent manufacturer's warnings and instructions for use. Cured material can only be removed mechanically.

LIMITATIONS

- Minimum substrate and ambient temperature 40 °F (4 °C).
- Do not thin. Addition of solvents will prevent proper cure.
- Material is a vapor barrier after cure.
- Not for sealing cracks under hydrostatic pressure at the time of application.
- 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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Sika Corporation
201 Polito Avenue
Lyndhurst, NJ 07071
Phone: +1-800-933-7452
Fax: +1-201-933-6225
usa.sika.com

Sika Mexicana S.A. de C.V.
Carretera Libre Celaya Km. 8.5
Fracc. Industrial Balvanera
Corregidora, Queretaro
C.P. 76920
Phone: 52 442 2385800
Fax: 52 442 2250537