BUILDING TRUST

PRODUCT DATA SHEET

Sikadur®-42 Grout-Pak

Pre-proportioned, epoxy, baseplate grouting system

PRODUCT DESCRIPTION

Sikadur®-42 Grout-Pak is a 3-component, 100 % solids, moisture-tolerant, epoxy baseplate grouting system.

USES

- Precision seating of baseplates
- Precision grouting of wind turbine tower bases requiring rapid strength gain
- Grouting under equipment, including heavy impact and vibratory machinery, reciprocating engines, compressors, pumps, presses, etc.
- Grouting for “pour-back” anchorage on post tensioning projects (e.g. segmental bridge)
- Grouting under crane rails

CHARACTERISTICS / ADVANTAGES

- Ready to mix, pre-proportioned kit
- Moisture-tolerant
- Corrosion and impact resistant
- Stress and chemical resistant
- Long working time
- High vibration resistance
- Fast strength gain
- Low peak exothermic system for large pours
- High effective bearing area
- Excellent flowability
- USDA certifiable for incidental food contact

PRODUCT INFORMATION

Packaging	**0.5 ft³ kit**: Contains 0.9 gal. epoxy (Component A in 2 gal pail and Component B in a 2 gal. pail), and 50 lb. aggregate (Component C) in a multi-wall bag. **1.5 ft³ kit**: Contains 2.7 gal. epoxy (Component A in a 5 gal. (19 L) pail and Component B in a 2 gal. pail) and 150 lb. aggregate (Component C) in three 50 lb. multi-wall bags.
Color	Concrete gray
Shelf Life	24 months from date of production if stored properly in original, unopened and undamaged sealed packaging
Storage Conditions	Store dry at 40–95 °F (4–35 °C). Protect from moisture. If damp, discard material.

TECHNICAL INFORMATION

Compressive Strength (ASTM C-579B) 50 % R.H.

	40 °F* (4 °C)	73 °F* (23 °C)	90°F* (32 °C)
8 hour	-	-	5,500 psi (37.9 MPa)
16 hour	-	9,600 psi (66.2 MPa)	9,800 psi (67.6 MPa)
1 day	-	12,200 psi (84.1 MPa)	11,500 psi (79.3 MPa)
3 days	4,800 psi (33.1 MPa)	14,000 psi (96.6 MPa)	14,000 psi (96.6 MPa)
7 days	13,700 psi (94.5 MPa)	14,900 psi (102.8 MPa)	14,800 psi (102.1 MPa)
14 days	13,900 psi (95.9 MPa)	15,000 psi (103.4 MPa)	15,200 psi (104.8 MPa)
28 days	13,900 psi (95.9 MPa)	15,200 psi (104.8 MPa)	15,600 psi (107.6 MPa)

* Material cured and tested at the temperatures indicated

Effective Bearing Area > 95 %*

* Percent final surface area of grout in contact with bearing plate

Flexural Strength 4,000 psi (27.6 MPa) (7 days) (ASTM C-580) 73 °F (23 °C) 50 % R.H.

Modulus of Elasticity in Flexure 1.30 x 10^6 psi (8,963 MPa) (7 days) (ASTM C-580) 73 °F (23 °C) 50 % R.H.

Tensile Strength 2,300 psi (15.8 MPa) (7 days) (ASTM C-307) 73 °F (23 °C) 50 % R.H.

Tensile Adhesion Strength Bond Strength to Concrete, 4,200 psi (29.0 MPa) (7 days) (ASTM C-882 modified) 73 °F (23 °C) 50 % R.H.
Bond Strength to Steel, 3,800 psi (26.2 MPa) (7 days)

Thermal Compatibility passes test (ASTM C-884)

Coefficient of Thermal Expansion 24.5 x 10^{-6} in./in./ °F (13.7x10^{-6} mm/mm/ °C) (ASTM C-531)

Water Absorption 0.04 % (2-hour boil) (ASTM C-413)

APPLICATION INFORMATION

Product Temperature 41–86 °F (5–30 °C)

Substrate Temperature 41–86 °F (5–30 °C)

Pot Life Approximately 90 minutes

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.

LIMITATIONS

- Do not thin. Addition of solvents will prevent proper cure
- Material is a vapor barrier after cure
- Minimum grout depth is 1 in. (25 mm)
- Baseplate should be shielded from direct sunlight and

rain for a minimum of 24 hours before epoxy grouting, and 48 hours after grouting
- Maximum grout depth is 4 in./lift (101 mm)
- Component C must be kept dry
- Cold material may require chaining, rodding, and pushing during placement
- For proper seating, allow grout to rise above the bottom of the base plate
- **Do not batch. Mix complete units**
- Not an aesthetic product. Color may alter due to variations in lighting and/or UV exposure

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.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Substrate and baseplate contact area must be clean, sound, and free of standing water. Remove dust, laitance, oils, grease, curing compounds, waxes, impregnations, foreign particles, coatings and disintegrated materials by mechanical means (i.e., sandblasting, bush hammering). Sandblast metal baseplates to a commercial white finish for maximum adhesion. Apply grout immediately to prevent re-oxidizing. Concrete substrate must have reached its desired strength (3,000 psi minimum) and must be dimensionally stable.

MIXING

0.5 ft^3 kit: Pour the entire contents of Components A & B into an appropriate mixing vessel (e.g. 5 gal.) bucket) and mix for 30 seconds with a 1/2 in. Jiffy mixing paddle (5 in. blade diameter) on a low-speed (400–600 rpm) 3/4 in. drive rotary drill, taking care not to entrain air during mixing. Do not over-mix. It is critical to the performance of the grout that there be no appreciable air bubbles in the resin. Slowly add the entire contents of Component C and mix until uniformly blended (approx. 5 minutes).

1.5 ft^3 kit: Pour the entire contents of Components A & B into an appropriate mixing vessel (e.g. 5 gal. bucket) and mix for 30 seconds with a 1/2 in. Jiffy mixing paddle (5 in. blade diameter) on a low-speed (400– 600 rpm) 3/4 in. drive rotary drill, taking care not to entrain air during mixing. Do not over-mix. It is critical to the performance of the grout that there be no appreciable air bubbles in the resin. Transfer the mixed resin to an appropriate mixing vessel. Slowly add the entire 3 bags of Component 'C' and mix until uniformly blended (approx. 5 minutes).

APPLICATION METHOD / TOOLS

Pour the mixed grout into the prepared forms from one side only to eliminate air entrapment. Baseplate should have vent holes around periphery to prevent air pockets from developing. Maintain the liquid head to ensure intimate contact with the base plate. Plungers may be used to ease placement. Place sufficient epoxy adhesive grout in the forms to rise slightly above the underside of the base plate. Grout depth of 1 in. minimum required.

Tooling and Finishing

Forming: The flowable consistency of the epoxy adhesive grout system requires the use of forms to contain the material around the baseplates. In order to prevent leakage or seepage, completely seal all forms. Apply polyethylene film or wax to all forms to prevent adhesion of the grout. Prepare form work to maintain a 2 in. liquid head to facilitate placement. A grout box that can be attached to the form will enhance the grout flowability. Projected anchor bolts should be wrapped with neoprene foam rubber (or similar) to prevent grout from adhering to the bolts. The use of expansion joints is recommended on large pours to minimize the potential for cracking in the epoxy grout (maximum 3–4 ft. spacing in each direction).

OTHER RESTRICTIONS

See Legal Disclaimer.

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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