



PRODUCT DATA SHEET

Edition 08.2018/v1
CSC Master Format™ 03 60 00
GROUTING

Sikadur® LT Grout

LOW-TEMPERATURE RAPID GROUT, ANCHORING SYSTEM OR INJECTION RESIN

Description	Sikadur® LT Grout is a low-viscosity modified vinyl ester material that cures at temperatures below 0 °C (32 °F) and is blended with Sikadur® Aggregate to provide a grout consistency or repair mortar consistency. It may also be used as an injection resin by combining the A and B components only (formerly Sikadur®-328LT).
Where to Use	<ul style="list-style-type: none"> Pressure injection of fine cracks (0.18 to 0.56 mm [0.007 to 0.022 in]) in structural concrete, masonry and other suitable substrates, at low temperatures. Gravity feeding of dry cracks in horizontal concrete and masonry to seal against penetration of water and detrimental solutions, at low temperatures. With a 4:1 aggregate/resin ratio, a fluid consistency grout is produced. This design mix produces an anchor grout for bolts or deformed bars in concrete or rock. With a 5:1 aggregate/resin ratio, a flowable consistency grout is produced. This rapid set grout can be used for realigning of equipment and machinery, baseplates, soleplates and columns. With a 7.5:1 aggregate/resin ratio, can be used to produce a fast set repair mortar in chemical environment, where concrete has eroded or acid brick has failed. It is excellent for horizontal surfaces tanks, bases and containment areas.
Advantages	<ul style="list-style-type: none"> Will cure at temperatures below freezing. Can be used with different aggregate loads to produce flowable or trowel grade mortars. Sikadur® LT Grout is very chemically resistant to a wide variety of acids, alkalis and salts. Sikadur® LT Grout may be placed at temperatures as low as -40 °C (-40 °F). It cures as the temperature reaches -20 °C (-4 °F) (for mortars and grouts consistency only). Ministry of Transport Québec acceptance.

Technical Data

Packaging Consistency	Injection Resin	Fluid	Flowable	Flowable	Trowellable
Thickness application	0.18 to 0.56 mm (0.007 to 0.022 in)	Ring-shape 6 - 12 mm (1/4 - 1/2 in)	10 - 25 mm (3/8 - 1 in)	25 - 50 mm (1 - 2 in)	6 - 25 mm (1/4 - 1 in)
Mix Ratio		4:1	5:1	5:1	7.5:1
Component A (Resin)	3.75 L (0,99 US gal.)	3.75 L (0,99 US gal.)	3.75 L (0,99 US gal.)	3.75 L (0,99 US gal.)	3.75 L (0,99 US gal.)
Component B (Hardener)	125 g (4.4 oz)	125 g (4.4 oz)	125 g (4.4 oz)	125 g (4.4 oz)	125 g (4.4 oz)
Sikadur® Aggregate-3	-	16 kg (35 lb) (4/5 bag)	20 kg (44 lb) (1 bag)	-	30 kg (66 lb) (1 1/2 bags)
Sikadur® Aggregate-8	-	-	-	20 kg (44 lb) (1 bag)	-
Yield	1 L = 1 m ² of resin at 1 mm thick (1 US gal = 231 in ³)	9.5 L (0.34 ft ³)	11.4 L (0.4 ft ³)	11.4 L (0.4 ft ³)	15.5 L (0.55 ft ³) 2.4 m ² at 6 mm

Shelf Life

Component A : 6 months in original, unopened packaging.
Component B : 12 months in original, unopened packaging.
Component C : Undefined.
Sikadur® LT Grout components can be stored on a pallet kept outside provided a plastic cover is used. The resin will not freeze.

Properties at 23 °C (73 °F) and 50% R.H.

Component A (resin)

Specific gravity 1.05 kg/L (8.7 lb/US gal.)
Viscosity 500 cps
Colour Grey

Component B (hardener)

50% active Benzyl Peroxide powder

Component C

Sikadur® Aggregate-3 or Sikadur® Aggregate-8

Components A+B (mixed, as primer or resin)

Specific gravity 1.05 kg/L (8.7 lb/US gal.)
Viscosity 500 cps
Colour Grey
Solids by weight 100%
Pot life, 200 g (7 oz) 12 min
Pot life, 200 g at -20 °C (7 oz at -4 °F) 1 hr 30 min

Curing Schedule, 690 mL (23 fl. oz) sample

Temperature	Time
25 °C (77 °F)	20 min
5 °C (41 °F)	60 min
-10 °C (14 °F)	3 hrs 30 min
Components A+B+C (7.5:1 Aggregate:resin)	
Density	2155 kg/m ³ (134 lb/ft ³)
Water Absorption after 24 hrs	0.15%
Compressive Strength ASTM C579 (method B at -10 °C [14 °F])	
1 day	52 MPa (7545 psi)
7 days	63 MPa (9141 psi)
28 days	70 MPa (10 157 psi)
Coefficient of Thermal Expansion	17.5 x 10 ⁻⁶ /°C (9.7 x 10 ⁻⁶ /°F)

Fields Tests in Rock

Ambient temperature during grouting: -7 °C (19 °F) to -10 °C (14 °F). Bottom of holes and sides wet. Holes blown out. Hole size: 70 mm (2 3/4 in). Drilled with a Star Bit. Dywidag bar size: 48 mm (2 in). Aggregate:resin loading 4:1 by weight.

Pull Out Results

Embedment	Failure load	Failure mode
mm (in)	kN (lbf)	
305 (12)	645 (14.5 x 10 ⁴)	Bondline
508 (20)	734 (16.5 x 10 ⁴)	None
914 (36)	734 (16.5 x 10 ⁴)	None

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.

HOW TO USE**Surface Preparation**

To pressure inject or gravity feed cracks, please consult Sika Canada.

New concrete should cure a minimum of 28 days. Dry surfaces provide best results. However, product will adhere to clean, damp surfaces. Remove all debris from working surfaces.

Use suitable means to remove contaminants, heavy laitance, or curing compounds, which will interfere with proper adhesion. Special consideration must be given to oil or other foreign material, which may have penetrated into the concrete. Pull Tests must always be used to verify adequacy of preparation. Frozen substrates should be heated to remove frost. Holes should be prepared by blowing out with oil-free air to remove drilling debris and surplus water.

Mixing

The Component B (hardener) catalyst should be added slowly to the Component A (resin) while mixing with a slow speed mixer (300 rpm). A noticeable colour change will occur, at which time the Sikadur® Aggregate should be added slowly while mixing. The material should be mixed for two (2) minutes after all the aggregate has been wet with the resin.

Application

Before placing a 7.5:1 design mix the surface must be primed. Priming is achieved by mixing the Sikadur® LT Grout Component A (resin) plus Component B (hardener) and applying at 4 m²/L (163 ft²/US gal.). While still wet proceed with mixing and placement of the 7.5:1 Sikadur® LT Grout Mortar. The 5:1 Sikadur® LT Grout design mix is sufficiently "resin rich" to be self priming when placing. The mixed material should be placed immediately after mixing.

To pressure inject or gravity feed cracks, please consult Sika Canada.

Clean Up

Remove uncured product from tools and mixing equipment with Methyl Iso-Butyl Ketone (mi-Bk). DO NOT USE XYLENE. Acetone is a suitable alternate.

Limitations

- Moisture sensitivity. Sikadur® LT Grout will provide adhesion on surface dry concrete.
- Free water should be blown dry, best adhesion is obtained on dry surfaces.
- Sikadur® LT Grout must not be thinned (resin); solvents will prevent proper cure.
- Minimum age of concrete must be 21 to 28 days depending on curing and drying conditions.
- Resin : minimum in place curing temperature: -5 °C (23 °F) unless using formulation for -20 °C (-4 °F).
- Maximum neat resin thickness: 3 mm (1/8 in).
- Not for injection of cracks under damp, wet or hydrostatic pressure/flowing water conditions.
- Sikadur® LT Grout contains a flammable monomer, so there must be no smoking, open flames or pilot lights or use of tools or equipment which may cause sparking.

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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