



**PRODUCT DATA SHEET**

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EPOXY GROUTING

# Sikadur®-42 Grout Pak Multi-Flo

## PRE-PROPORTIONED, EPOXY BASE PLATE GROUTING SYSTEM

<b>Description</b>	Sikadur®-42 Grout-Pak Multi-Flo is a three-component, solvent-free, moisture-insensitive, epoxy grouting system to seat base plates.
<b>Where to Use</b>	<ul style="list-style-type: none"> <li>Seat base plates for light and heavy machinery</li> <li>Precision grouting of wind turbine tower bases requiring rapid strength gain</li> </ul>
<b>Advantages</b>	<ul style="list-style-type: none"> <li>Ready-to-mix, pre-proportioned kits</li> <li>Moisture insensitive</li> <li>Corrosion and impact resistant</li> <li>Stress and chemical resistant</li> <li>High compressive strength</li> <li>High vibration resistance</li> <li>The versatility of Sikadur®-42 Grout Pak Multi-Flo allows for an aggregate resin ratio of: 6:1 for a pourable consistency, 5:1 for a flowable consistency</li> <li>Ministry of Transport Québec acceptance</li> </ul>

**Technical Data**

<b>Packaging</b>	125 kg kit	62.4 kg kit
Component A	13.49 kg (29.7 lb)	6.75 kg (14.9 lb)
Component B	4.34 kg (9.6 lb)	2.17 kg (4.8 lb)
Component C	4 x 26.75 kg (59 lb) bag	2 x 26.75 kg (59 lb) bag
<b>Yield</b>	6:1 - 56.6 L per kit (2 ft³)	6:1 - 28.3 L per kit (1 ft³)
<b>Colour</b>	Concrete Grey	
<b>Shelf Life</b>	2 years in original unopened packaging. Store dry at 5 to 32 °C (41 to 89 °F). Condition product at 20 to 30 °C (68 to 86 °F) before using.	
<b>Mix Ratio</b>	Fluid consistency depends on the aggregate to resin ratio. If a greater flow is required for the larger unit of 56.6 L (2 ft³) yield, reduce aggregate by approx. half to two thirds of one of the four bags. Therefore: Use 3.3 to 3.5 bags of component C for a 5:1 - flowable consistency. Use 4 bags of component C for a 6:1 - pourable consistency. If a greater flow is required for the smaller unit of 28.3 L (1 ft³) yield, reduce aggregate by approx. one third to one quarter of one of the two bags. Therefore: Use 1.65 to 1.75 bags of component C for a 5:1 - flowable consistency. Use 2 bags of component C for a 6:1 - pourable consistency.	

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

Compressive Strength ASTM C579, MPa (psi)						
Ratio	6:1 (Pourable)			5:1 (More fluid)		
	5 °C (41 °F)*	23 °C (73 °F)*	38 °C (100 °F)*	5 °C (41 °F)*	23 °C (73 °F)*	38 °C (100 °F)*
16 h	-	-	-	-	31 (4498)	43 (6239)
1 day	-	37 (5368)	63 (9141)	3 (435)	41 (5949)	51 (7400)
3 days	-	-	-	45 (6529)	71 (10 302)	64 (9286)
7 days	70 (10 157)	95 (13 784)	90 (13 059)	88 (12 768)	90 (13 059)	77 (11 172)
28 days	96 (13 929)	103 (14 945)	96 (13 929)	106 (15 380)	105 (15 235)	85 (12 333)
*Product cured and tested at temperatures indicated						
Tensile Strength ASTM C307, MPa (psi)						
Ratio	6:1			5:1		
14 days	12.5 (1813)			12 (1741)		
Flexural Strength ASTM C580, MPa (psi)						
14 days	28 (4062)			31.5 (4570)		
Tangent Modulus of Elasticity in Bending ASTM C580, GPa (psi)						
14 days	14.7 (21.3 x 105)			12.9 (18.7 x 10 <sup>5</sup> )		
Coefficient of Thermal Expansion ASTM C531						
	3.29 x 10 <sup>-5</sup> /°C (1.83 x 10 <sup>-5</sup> /°F)			3.6 x 10 <sup>-5</sup> /°C (2.0 x 10 <sup>-5</sup> /°F)		
Bond Strength ASTM C882 Modified, MPa (psi)						
14 days (to concrete)	28 (4062)			20 (2902)		

**Water Absorption ASTM C413**

7 days (2 h boil)

0.08 %

0.05 %

**Pot Life**, Mix 3:1 (A:B 267 g)

65 - 85 minutes

*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**

For optimum results when grouting in critical items of equipment, it is recommended that the surface preparation requirements of the latest edition of Chapter 5, API Recommended Practice 686 be followed. This document is the "Recommended Practices for Machinery Installation and Installation Design" published by the American Petroleum Institute.

Surface and base plate contact area must be clean and sound. It may be dry or damp, but free of standing water. Remove dust, laitance, oils, grease, curing compounds, impregnations, waxes, foreign particles, coatings, and disintegrated materials by mechanical means, i. e. chipping with a chisel, sandblasting. Sandblast metal base plates to a commercial white finish (SP-10) for maximum adhesion. Apply grout immediately to prevent re-oxidizing of metal.

**Forming:** The consistency of the epoxy grout system requires the use of forms to contain the material around the base plates. In order to prevent leakage or seepage, all forms must be sealed. Apply polyethylene film or wax to all forms to prevent adhesion of the grout. Prepare form work to maintain more than 100 mm (4 in) liquid head to facilitate placement. A grout box equipped with an inclined trough attached to the form will enhance the grout's flowability and minimize air encapsulation.

**Note:** Expansions joints are recommended especially in exterior applications. 13 mm wide joints spaced 1.5 m OC are advisable. Joints can be filled with an appropriate Sikaflex<sup>®</sup> sealant once formwork/falsework is removed.

**Mixing**

Thoroughly stir both Component A and Component B, distributing any settled solids and achieving an even consistency throughout each component. Mix the entire contents of components A and B in the component A pail for three (3) minutes with a paddle attached to a low speed drill (300 - 450 rpm). During the mixing operation, scrape down the sides and bottom of the mixing pail with a flat or straight edge trowel at least once, to ensure complete mixing of A and B components. Empty entire contents of mixed A and B components into an appropriate mortar mixer ensuring that walls and bottom of mixing pail are scraped clean and all of mixed epoxy resin is added to mortar mixer. Slowly add the entire content of component C and mix until uniformly blended (approx. 5 minutes). Add all bags of component C unless a reduction is pre-advised by the Sika Canada Representative. Mixed grout should be kept agitated prior to placement.

**Application**

Pour the mixed grout into the prepared forms from one or two adjacent sides only, to avoid air entrapment. Maintain the liquid head to ensure intimate contact to the base plate. The minimum void depth beneath the base should be 25 mm (1 in). Where the void beneath the base plate is greater than 150 mm (6 in), place the epoxy grout in successive 150 mm (6 in) lifts or less, once the preceding lift has cooled. Place sufficient epoxy grout in the forms to rise slightly above the underside [3 mm (1/8 in)] of the base plate.

**Clean Up**

Sweep and collect into appropriate containers. Dispose of in accordance with applicable local regulations. Uncured material can be removed with Sika<sup>®</sup> Epoxy Cleaner. Cured material can only be removed mechanically.

**Limitations**

- If material is subject to cold or freezing temperatures during transportation to or storage on a job site, care must be taken to properly precondition A, B, and C components prior to beginning grouting operations.
- Grouting material must be stored in an area with an ambient temperature between 20 and 30 °C (68 and 86 °F) for a minimum of 48 hours before use.
- Cold ambient, substrate or material temperatures will inhibit the flow and curing characteristics of Sikadur<sup>®</sup>-42 Grout Pak Multo-Flo. For temperatures below 16 °C (61 °F), contact Sika Canada Technical Service.
- Should ambient, substrate or material temperatures exceed 30 °C (86 °F) contact Sika Canada Technical Service for guidance as excessive heat can influence the properties of epoxy polymer grouts.
- Do not thin with solvents. Solvents will prevent proper cure.
- Material is a vapour barrier after cure.
- Minimum grout thickness: 25 mm (1 in).
- Maximum grout thickness: 150 mm (6 in) per lift.
- Component C must be kept dry.
- For bolt grouting applications, contact Sika Canada Technical Service.
- Mix complete units only.
- Do not subject cured epoxy grout to sudden temperature changes especially during early curing stages.
- Contact Sika Canada Technical Service for control joint spacing on large base plate grouting projects.

**Health and Safety Information**

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains 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](http://www.sika.ca)

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