

PRODUCT DATA SHEET

SikaEmaco® T 1600

(formerly MEmaco T 1600)

Two component, rapid setting, fibre reinforced hybrid traffic mortar for asphalt repair

DESCRIPTION

SikaEmaco® T 1600 is a two component, fast setting and rapid hardening hybrid mortar for asphalt repair. SikaEmaco® T 1600 Part A (powder) contains selected cements, accelerating hydraulic binders, well graded sands, micro fibres and special additives providing rapid strength build-up, improved durability and low drying shrinkage.

When mixed with SikaEmaco® T 1600 Part B (polymer liquid), a mortar with a pourable consistency results which can be easily spread and applied.

SikaEmaco® T 1600 can be used in thickness from 5 mm up to 100 mm; with addition of clean gravel also up to 200 mm.

USES

SikaEmaco® T 1600 is used for:

- Patch repair of asphalt traffic decks.
- Fixing street furniture into asphalt.
- For connections between asphalt and concrete areas.
- Where very short traffic disruption periods are required.

Note: For repair of concrete-based surfaces please refer to SikaEmaco® T 1100 TIX, T 1200 PG and T 1400 FR products.

FEATURES

- Rapid strength build-up - SikaEmaco® T 1600 can be opened to all traffic in less than 1 hour (at +23 °C).
- Pourable consistency for ease of application, but still thixotropic enough to allow applications in slopes.
- Higher thickness possible with the addition of gravel.
- Can be used at temperatures as low as +1 °C.
- High flexural strength due to fibre-reinforcement and polymer-modification.
- Excellent adhesion to both asphalt and concrete
- Low shrinkage for durability.
- Minimized cracking tendency
- Freeze-thaw salt resistant
- Very good skid resistance, even in wet conditions.
- CE-certified according to EN 1504-3

CERTIFICATES AND TEST REPORTS

- CE-Certification according to EN 1504-3 Class R2
- Reaction to fire according to EN 13501-1 Class B_fs1

PRODUCT INFORMATION

Packaging	SikaEmaco® T 1600 is available in 23.85 kg kits consisting of 20 kg Part A in paper bag and 3.85 kg of Part B in a jerry can.
Shelf life	12 months if stored at the mentioned storage conditions.
Storage conditions	Store SikaEmaco® T 1600 in dry conditions, no permanent storage over +30 °C. Keep Part A (powder) pallets protected from rainfall prior to application. Part B (liquid) needs to be protected from frost!
Appearance and colour	Part A: dark grey powder Part B: milky white liquid

Maximum grain size	2 mm
Density	approx. 2.0 g/cm ³ (fresh mortar)
Total chloride ion content	≤ 0.05 %

TECHNICAL INFORMATION

Compressive strength		+20 °C	+5 °C	+1 °C	(EN 12190)
	1 hour	≥ 4 N/mm ²	≥ 2 N/mm ²	-	
	2 hours	≥ 6 N/mm ²	≥ 4 N/mm ²	≥ 2 N/mm ²	
	4 hours	≥ 11 N/mm ²	≥ 10 N/mm ²	≥ 5 N/mm ²	
	1 day	≥ 14 N/mm ²	≥ 13 N/mm ²	≥ 11 N/mm ²	
	28 days	≥ 25 N/mm ²	≥ 20 N/mm ²	≥ 20 N/mm ²	
Modulus of elasticity in compression	at 20 °C		10,200 N/mm ²		
Flexural-strength	at 20 °C		(EN 196-1)		
	1 day		≥ 4 N/mm ²		
	28 days		≥ 8 N/mm ²		
Pull-out resistance	Dry asphalt		28 days	≥ 2.0	
	Dry concrete		28 days	≥ 2.5	
	Concrete after Freeze-Thaw (50 cycles with salt)		28 days	≥ 2.0	
Shrinkage	28 days		≤ 0.3 mm/m		(EN 12617-4)
Service temperature	-30 °C to +60 °C				
Capillary absorption	28 days		≤ 0.1 kg·m ⁻² ·h ^{-0.5}		(EN 13057)
Reaction to fire	Class B _{f1} -s1				(EN 13501-1)

APPLICATION INFORMATION

Fresh mortar density	approx. 2.0 kg/l			
Consumption	Approx. 2,000 kg of SikaEmaco® T 1600 (1,700 kg Part A and 300 kg Part B) is needed to prepare 1 m³ of fresh mortar. One 23.85 kg kit of SikaEmaco® T 1600 will yield approx. 12 litres of mortar.			
Layer thickness	from 5 to 100 mm			
Substrate temperature	+1 °C to +35 °C			
Pot Life	+20°C	+5°C	+1°C	
	approx. 10 Min.	approx. 15 Min.	approx. 20 Min.	
Applied product ready for use	Walkable	+20°C	+10°C	+5°C
	after approx.	30 Min.	60 Min.	90 Min.
	Open to traffic	+20°C	+10°C	+5°C
	after approx.	60 Min.	90 Min.	120 Min.

BASIS OF PRODUCT DATA

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

IMPORTANT CONSIDERATIONS

Handling and transport

Usual preventive measures for the handling of chemical products should be observed when using this product, for example do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed.

Specific safety information referring the handling and transport of this product can be found in the Material Safety Data Sheet. For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted. Disposal of product and its container should be carried out according to the local legislation in force. Responsibility for this lies with the final owner of the product.

ECOLOGY, HEALTH AND SAFETY

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.

APPLICATION INSTRUCTIONS

NOTES ON INSTALLATION

- Do not apply SikaEmaco® T 1600 at temperatures below +1°C nor above +35°C.
- Do not use vibrator for placing the mortar.
- For applications over 100 mm, 7 kg of clean, dry gravel (4 - 8 mm or 8 - 16 mm depending on the final thickness) must be added to one kit of SikaEmaco® T 1600.
- Do not add cement or other substances than the gravel mentioned above to SikaEmaco® T 1600 mortar mixes!
- Do not wet cure the material! Only protect from rain during hardening.

SUBSTRATE PREPARATION

The asphalt must be fully hardened, clean and sound to ensure good adhesion. All loose traces of gravel, sand, dust, grease, oil, etc. must be removed. Damaged or contaminated asphalt should be removed to obtain a keyed surface. Aggregate should be clearly visible on the surface of the asphalt structure after surface preparation.

Cut the edges of the repair vertically to a minimum depth of 5 mm.

SikaEmaco® T 1600 can be applied at ambient and substrate temperatures as low as +1 °C and maximum +35 °C. Do not apply on frozen substrates!

MIXING

SikaEmaco® T 1600 is delivered in kits with both components in the correct mixing ratio already - no additional water required for mixing!

It is strongly recommended that only full sets are mixed. Damaged or opened packaging should not be used.

Empty SikaEmaco® T 1600 Part B (liquid) into a clean mixing container and add SikaEmaco® T 1600 Part A (powder) while mixing with a suitable paddle attached to a powerful, slow speed electric drill (max 400 rpm). Continue mixing for approx. 1 minute until a homogeneous mortar is obtained. The mortar is now ready for application and needs to be directly applied

Note: Do not mix more material as can be applied within the pot life of approximately 10 minutes at 20°C. Do not mix SikaEmaco® T 1600 with any other material. Only the addition of maximum 30% of clean, well sized gravel is permitted for applications with a thickness over 100 mm.

APPLICATION

The prepared substrate should be pre-soaked with water before applying SikaEmaco® T 1600. The surface must be mat-damp, but without standing water.

For optimum curing the temperatures during application of SikaEmaco® T 1600 should be between +1°C and +35°C.

Do not apply SikaEmaco® T 1600 if the temperature is expected to drop below +1°C during application or within the next 8 hours.

The material is poured into the patch repair area. Spread the material and level according to the road level with a trowel.

CURING TREATMENT

SikaEmaco® T 1600 is self-curing. Wet curing is not advised. In case of rain directly after application the repaired area needs to be protected until the mortar is hardened.

CLEANING OF EQUIPMENT

Tools and mixer must be cleaned immediately after use with water. Cured material can only be removed mechanically.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for exact product data and uses.

PRODUCT DATA SHEET

SikaEmaco® T 1600
September 2024, Version 02.0
020201000000002004

LEGAL NOTES

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 in accordance with Sika's recommendations. 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 written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. 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.

Sika Services AG

Tüffenwies 16
8048 Zürich
Tel: +41 58 436 4040
www.sika.com

PRODUCT DATA SHEET

SikaEmaco® T 1600
September 2024, Version 02.0
020201000000002004

SikaEmacoT1600-en-(09-2024)-2.pdf