Construction

SikaGrout®-104

Non shrink, expanding pouring grout

Product Description	Cement based flowable, two stage expanding grout with selected aggregate.
Uses	■ To grout bearings, machine foundations, columns joints in precast construction etc. ■ To grout anchors in concrete ■ To grout cavities, gaps and voids in concrete
Characteristics / Advantages	■ Easy to use (ready to mix powder) ■ Easy to mix, only add water ■ Adjustable consistency ■ Very good flow characteristics ■ Rapid strength development ■ High final strengths ■ Expands by gas generation whilst in the plastic state of curing ■ Impact- and vibration resistant ■ Non-corrosive ■ Not flammable, non-toxic ■ Shrinkage compensated

Product Data

Form

Appearance / Colour	Grey powder
Packaging	25 kg bags

Storage

Storage Conditions / Shelf-Life	6 months from date of production if stored properly in dry conditions in undamaged and unopened original sealed packaging.

Technical Data

Chemical Base	Cement, selected fillers and aggregates, special additives
Bulk Density	~ 1.2 kg/l (of fresh grout) at 27 ºC
Grading	2.36 mm down
Layer Thickness	SikaGrout®-104: 20 mm min. / 50 mm max.

Mechanical / Physical Properties

Compressive Strength

Ambient temperature: +30°C (According ASTM C1107-91)

1 day	3 days	7 days	28 days
~ 10 N/mm^2	~ 20 N/mm^2	~ 35 N/mm^2	~ 50 N/mm^2

Flexural Strength

Ambient temperature: +30°C (According to ASTM C 293-79)

7 days	28 days
~ 4.0 N/mm^2	~ 5.0 N/mm^2

System Information

Application Details

Consumption

For 1 mm thickness per m^2

SikaGrout®-104: ~1.87 kg/l

Substrate Quality

Concrete, grout, stone:
Surfaces must be sound, clean, free from ice, oils, grease, standing water and any loose or friable particles and any other surface contaminants.

The concrete “pull off” (tensile) strength should be > 1.0 MPa.

Steel, iron:
Clean, free from oil or grease, rust and scale etc.

Substrate Preparation

The substrate should be prepared by suitable mechanical preparation techniques such as high pressure water jetting, breakers, blastcleaning, scabblers, etc.
The concrete substrates should be pre-soaked with clean water continuously for 2 - 6 hours to ensure a saturated surface dry condition throughout the operation.

Immediately before pouring remove *all* excess or standing water from within any formwork.

Application Conditions / Limitations

Substrate Temperature	+5°C min. / +40°C max.
Ambient Temperature	+5°C min. / +40°C max.

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Application Instructions

Mixing	*SikaGrout®-104:* *For Flowable:* Water : grout powder = 1 : 6.25 to 1 : 7.14 parts by weight for a grout with good flow properties (3.5- 4.0 l water per bag). *For Pourable:* Water : grout powder = 1 : 7.14 to 1 : 8.33 parts by weight for a grout with good flow properties (3.0- 3.5 l water per bag).
Mixing Time	3 minutes minimum
Mixing Tools	Mix grout powder mechanically in the correct ratio with water with low speed (max. 500 rpm) electric drill to avoid entraining too much air. Dependent on the desired consistency and flow properties, the mixing ratio can be adjusted.
Application Method	Pour grout immediately after mixing into the prepared openings. Ensure, that air displaced by the grout can easily escape, otherwise entrapped air will prevent full contact grouting. Wet porous substrates to saturated surface dry condition. When grouting base plates etc., ensure that a continuous and sufficient head of pressure is maintained to keep the grout flowing. To make optimum use of the products expansion properties, apply the grout as quickly as possible (within max. 15 minutes).
Cleaning of Tools	Clean all tools and application equipment with water immediately after use. Hardened/cured material can only be mechanically removed.
Potlife	~ 20 minutes at +30°C
Notes on Application / Limitations	- Not to be used for patch repair works - Use only on clean, sound substrate - Keep exposed surface to the strict minimum

Curing Details

Curing Treatment	Keep any visible, exposed grout surfaces as small as possible and protect from premature drying out by suitable measures (keep moist, cover with wet Hessian etc.).

Value Base

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

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Legal Notes

Sika India Pvt. Ltd.
Commercial Complex II
620, Diamond Harbour Road
Kolkata, 700 034, India

Phone +91 33 2447 2448/2449
Telefax +91 33 2468 8688/2665
www.sika.in
info@in.sika.com