

PRODUCT DATA SHEET

SikaGrout[®]-318 VN

NON-SHRINK, HIGH STRENGTH, CEMENTITIOUS GROUT

DESCRIPTION

SikaGrout[®]-318 VN is a cement-based, 1-component, ready to mix, shrinkage compensated, high strength, and flowable grout. Pre-mixed with selectively graded materials result in a dense homogeneous mix.

USES

SikaGrout[®]-318 VN is designed to counteract the normal shrinkage of mortar and concrete and to absorb and minimize effects of vibration on foundations. The high early strength property is suitable for work that requires early loads including machine bases structural columns, prestressed girders, bridge bearings, rail posts and seatings bolts etc.

CHARACTERISTICS / ADVANTAGES

- Good flowability
- Good dimensional stability
- Controlled expansion
- Chlorides-free; will not rust, bleed, or harm metal on contact
- High early compressive strength; allows earlier loading and minimizes costs
- High early strength produces minimal downtime for maintenance and repairs
- Non toxic, non corrosive
- Ready and easy to use
- Economical

PRODUCT INFORMATION

Packaging	25 kg bag
Shelf life	Min. 4 months if stored properly in unopened, original packaging
Storage conditions	Dry, cool, shaded place
Appearance / Colour	Grey powder
Bulk Density	~1.6 kg/l

TECHNICAL INFORMATION

Compressive Strength	1 day	≥ 40 N/mm ²	(ASTM C349 / C109)
	28 days	≥ 70 N/mm ²	
Expansion	≥ 0.1% at 3 hours		(ASTM C940)

APPLICATION INFORMATION

Mixing ratio	~11.5–12.5% About 2.875–3.125 litres of clean water per 25 kg bag
Fresh mortar density	~2.2 kg/l

Yield	1 bag yields approx. 13.1 litres of mortar Approx. 77 bags required for 1 m ³ of mortar
Layer Thickness	25 mm min. / 80 mm max.
Flowability	250–320 mm ^(*) (ASTM C230, not dropping table) <small>(*)at mixing ratio of 12.5% and conditions of 27°C / 65% r.h</small>
Substrate Temperature	10°C min. / 40°C max.

BASIS OF PRODUCT DATA

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.

IMPORTANT CONSIDERATION

- Minimum application temperature is 10°C.
- At temperature lower than 20°C, strength gain will be slower.
- Normal curing practice should be adopted for at least 3 days wherever mortar is exposed.
- Avoid application in direct sun and/or strong wind.
- Do not add water under or over recommended dosage.
- Apply only to sound, prepared substrate.
- Do not add additional water during the surface finishing as this may cause discolouration and cracking.

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

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete surfaces should be clean, sound and free from oil, grease, laitance and loose particles. Metal surfaces (iron and steel) should be free from scale, rust, oil and grease. Absorbent substrates must be saturated thoroughly, but no standing water.

MIXING

Powder should be added to the pre-gauged water to suit the desired consistency. Mix mechanically for at least 3 minutes with a low speed electric drill (max. 500 rpm) with a disc agitator attached, until a smooth consistency is achieved. Mixing equipment such as two arms, forced action basket/pan type mixer can also be used.

APPLICATION

Pour mortar after mixing. Ensure that air entrained into the grout is allowed to escape. When carrying out base plate grouting, ensure sufficient head of pressure

is maintained to keep mortar flow uninterrupted. Make sure that necessary form work is firmly in place and watertight. To achieve optimum expansion result, apply mortar as quickly as possible (preferably within 15 minutes after mixing).

Grouting of machine beds

Pre-wet thoroughly, no standing water in bolt holes. If possible, grout anchor first, and the mortar bed in the second operation. Ensure continuous flow of mortar.

Grouting base plate

Prewetting for approx. 24 hours, no standing water. Maintain constant hydro-static pressure to continuous flow. Use steel rods or chain to make sure that all cavities are filled. Make sure that entrapped air can escape easily.

Grouting of large cavities / large volume

Please contact Sika Technical Service for further advice.

CURING TREATMENT

Protect mortar surfaces from premature drying out by standard curing practice (keep moist, cover with wet hessian, use of curing compound e.g. Sika Antisol® E).

CLEANING OF TOOLS

Clean all tools and equipment with water immediately after use. Hardened mortar can only be removed mechanically.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the declared data for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data.

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 recom-

mendations, 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.

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