BUILDING TRUST

PRODUCT DATA SHEET

SikaQuick®-2500 AU

RAPID HARDENING, HIGH STRENGTH TRAFFICABLE REPAIR MORTAR

DESCRIPTION

SikaQuick®-2500 AU is a 1- part, cementitious, very rapid hardening, early strength gain concrete repair material.

USES

- On, above and below grade on concrete
- Highway overlays and repairs
- Structural repair material for concrete roadways, parking structures, bridges, dams and ramps
- Full depth patching repairs
- Economical patching material for horizontal repairs of concrete and mortar

FEATURES

- Very rapid hardening as defined by ASTM C-928
- Epoxy coatings can be applied as early as 4 hours
- Freeze / thaw resistant
- Easy to mix and apply - labor saving
- High early strength
- Fast setting
- Open to foot traffic in 45 minutes
- Open to vehicle traffic in 1 hour (at 23 °C)
- Not a vapour barrier
- Can be placed up to 150mm

CERTIFICATES AND TEST REPORTS

- Approved by Qld TMR - Product Index for Bridges and Other Structure. Complies with the requirements of MRTS274.
- Meets RTA Rapid Mortar Bar Test RTA T363 <0.1% Non-Reactive

PRODUCT INFORMATION

Composition	Cement, selected aggregates and special additives
Packaging	20 kg bag
Appearance and colour	Grey powder
Shelf life	12 months from date of production
Storage conditions	Product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between 4°C - 35°C. Always refer to packaging.

TECHNICAL INFORMATION

Compressive strength (AS 1478.2:2005)

Time	Compressive Strength
1 hour	~ 13 MPa
2 hour	~ 20 MPa
1 day	~ 35 MPa
7 days	~ 65 MPa
28 days	80 MPa

Material and curing conditions at (23°C / 50% r.h.) Water/powder = 0.105

Tensile strength (ASTM C 348)

Time	Tensile strength in Flexure
1 day	> 5.5 MPa
7 days	> 6.9 MPa
28 days	> 7.6 MPa

Material and curing conditions at (23 °C / 50% r.h.) Water/powder = 0.105

Shrinkage ~500 με after 28 days at 23 °C / 50 % r.h. (AS 2350.13-2006)

Tensile adhesion strength ≥ 2.0MPa (EN 1542)

Electrical resistivity (FM5-578) *50mm Probe Spacing*

7 days	~ 52,000 Ω.cm
28 days	~ 114,000 Ω.cm
56 days	~ 126,000 Ω.cm
90 days	~ 175,000 Ω.cm

APPLICATION INFORMATION

Mixing ratio	2.1 – 2.4 litres of water per 20 kg bag
Yield	10 litres per 20 kg bag
Ambient air temperature	7°C minimum
Substrate temperature	7°C minimum
Pot Life	Approximately 15 minutes after adding powder to the water
Initial set time	~ 15 - 20 minutes at 23 °C / 50 % r.h. (AS/NZS 2350.4-2006)
Final set time	~ 25 - 30 minutes at 23 °C / 50 % r.h. (AS/NZS 2350.4-2006)
Fresh mortar density	2,200 kg/m3

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 CONSIDERATIONS

- Apply only to sound, prepared substrate.
- Avoid application in direct sun and/or strong winds.
- Do not feather edge.
- Use only potable water.
- Variations in aggregates may produce differences in strengths from the typical values stated in Product Data Sheet.
- For early application of epoxy coatings. On site testing is recommended for verification. Consult coatings manufacturer for advice.

ECOLOGY, HEALTH AND SAFETY

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

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

Concrete
Surface must be clean and sound. Remove all deteriorated concrete, dirt, oil, grease, and other bond-inhibiting materials from the area to be repaired. Be sure repair area is not less than 5 mm deep. Preparation work should be done by appropriate mechanical techniques.
Obtain an exposed aggregate surface with a minimum

surface profile of 3 mm (CSP 6) on clean, sound concrete. To ensure optimum repair results, the effectiveness of decontamination and preparation should be assessed by a pull-off test. Saw cutting of edges is recommended. Saturate surface to be repaired with clean water. Substrate should be saturated surface dry (SSD) prior to application.

Steel reinforcement

Rust, scale, mortar, concrete, dust and other loose and deleterious material which reduces bond or contributes to corrosion shall be removed. Surfaces shall be prepared using abrasive blast cleaning techniques or high pressure water-blasting to achieve a bright metal finish.

MIXING

Mechanically mix in an appropriately sized mortar mixer. Wet down all tools and mixer to be used. Start with 2.1 litres of water added to the mixing vessel. Add 1 bag of SikaQuick®-2500 AU while continuing to mix. Add up to another 0.3 litres of water to achieve desired consistency. Do not over water.

APPLICATION

Reinforcement Corrosion Protection / Primer Coating

Where a reinforcement coating is required, apply to the whole exposed circumference of the steel the SikaTop-110 EpoCem or Sika Monotop-910N. The repair mortar must be applied into the coating ‘wet’ on ‘dry’.

Concrete Bonding Primer

Prime the prepared substrate with a scrub coat of SikaQuick®-2500 AU by firmly scraping the scrub coat over the substrate surface to form a thin layer and fill any pores or cavities in the surface. Ensure the whole surface to be repaired is covered by the scrub coat. The repair mortar has to be applied into primer ‘wet’ on ‘wet’.

Repair Mortar

The prepared mortar must be scrubbed into the substrate. Be sure to fill all pores and voids. force materials against the edge of the repair, working towards the centre. After filling the repair, screed of excess. Allow concrete to set to desired stiffness, then finish. If a smoother finish is desired, a magnesium float should be used. Mixing, placing and finishing should not exceed 15 minutes maximum. To control setting times, cold water should be used in hot weather and hot water used in cold weather.

CURING TREATMENT

Moist cure should commence immediately after finishing. It is necessary to protect newly applied material from rain. To prevent from freezing, cover with insulating material.

CLEANING OF EQUIPMENT

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

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 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.

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