BUILDING TRUST

PRODUCT DATA SHEET

SikaGrout® GP AU

GENERAL PURPOSE, "CLASS A" PUMPABLE, SHRINKAGE-COMPENSATED CEMENTITIOUS GROUT

DESCRIPTION

SikaGrout® GP AU is a pumpable, shrinkage-compensated, flowable cementitious "Class A" grout with extended working time to suit local ambient temperatures.

USES

SikaGrout® GP AU is a general purpose grout suitable for the following applications:
- General purpose grouting
- Grouting works for machine foundations, anchor bolts etc.
- Precast grouting
- Filling of cavities, gaps, recesses, etc.

For precision grouting, SikaGrout®-212HP is recommended.

FEATURES

- Easy to mix and apply
- Flowable consistency (according to mix)
- Rapid strength development
- Non-corrosive
- Non-toxic
- Iron and chloride free
- Shrinkage-compensated
- Good pumping properties

CERTIFICATES AND TEST REPORTS

Department of Main Roads Qld (TMR) 2019, Product Index for Bridges and Other Structures, Section 5. Registered and Conforming Products, 5.33 Repair Materials (Concrete) – Grouts

PRODUCT INFORMATION

Packaging	20 kg bag
Shelf life	9 months from the date of production
Storage conditions	Store properly in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +10 °C and +35 °C. Protect from direct sunlight.
Appearance and colour	Grey premixed powder
Maximum grain size	D_{max}: 0.4 mm

Density	~ 2.2 kg/l (depending on consistency and temperature)

TECHNICAL INFORMATION

Compressive strength (AS 1478.2:2005)

	Stiff	Plastic	Flowable
1 day	~ 25 MPa	~ 20 MPa	~ 12 MPa
7days	~ 50 MPa	~ 45 MPa	~ 35 MPa
28 days	~ 60 MPa	~ 55 MPa	~ 50 MPa

Material and curing conditions at 23°C / 50% r.h.
Above results based on 50mm x 50mm cube specimens

Expansion max 3.0 % (*Flowable consistency*) (AS 1478.2-2005)

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

7 days	~ 4,000 Ω.cm
28 days	~ 4,500 Ω.cm
56 days	~ 4,600 Ω.cm
90 days	~ 5,000 Ω.cm

APPLICATION INFORMATION

Consumption Approximate number of bags per 1.0 m^3

Stiff	Plastic	Flowable
96	94	90

Yield

Stiff	Plastic	Flowable
10.4 litres	10.6 litres	11.1 litres

Layer thickness

Consistency	Thickness
Stiff & Plastic	10 mm min. / 100 mm max.
Flowable	10 mm min. / 50 mm max.

Ambient air temperature +10 °C min. / +35 °C max.

Mixing ratio Water addition per 20 kg bag (litre/s)

Stiff	Plastic	Flowable
2.9 - 3.0	3.2 - 3.4	4.0 - 4.6

These mix ratios are a guide and preliminary trials at local temperatures / humidity conditions are recommended.

Substrate temperature +10 °C min. / +35 °C max.

Pot Life 30 mins approx.

Setting time (AS 2350.4:2006)

Temperature	Initial Set	Final Set
23 °C	~ 3 hrs	~ 4 hrs 45 mins

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.

FURTHER DOCUMENTATION

SikaGrout and Sikadur products are tested in accordance with Australian Standards and/or Internationally accepted Standards. The published performance data is achieved by testing strictly in accordance to the procedures of these standards. Any test procedures performed by others on our products that are not in strict accordance with the standard in every facet will likely produce results different from the published above. On site testing by others can be affected by external factors such as incorrect mixing methods, poor sampling techniques, varying temperatures, curing, crushing procedures etc. Sika can provide Certificates of Compliance of all products delivered to site prior to installation if required. If results of site testing or testing facilities by others vary from the Sika published data we recommend the following items be reviewed before contacting the manufacturer as one or all of these items could be influencing the results attained on site. These include but are not limited to the following: site conditions, ambient, substrate and product temperature, mixing equipment, mixer speed, pump equipment, contractor experience, and incorrect test methods.

Sika Australia do not take responsibility nor have to make a case for any such tests where results of testing by others do not achieve the published data as above.

IMPORTANT CONSIDERATIONS

At temperatures +20 °C and below, setting time and strength development will be slower. Non-shrink grout contains additives which expand
either during the plastic stage and / or the hardening stage to compensate for the shrinkage of the cementitious matrix. However, this 'non-shrink' property will be effective only if the material is not subjected to water loss. This is confirmed by a note in the ASTM C 1107 Standard
Specification for packaged dry, hydraulic cement grout (non-shrinkable), which clarifies the behaviour of the non-shrink grout when subjected to some drying:
"Note 1: Since all conditions of use cannot be anticipated, this specification requires non-shrink grout to exhibit no shrinkage when tested in a laboratory controlled moist-cured environment, and requires only the reporting of the observed height change, usually shrinkage, when test specimens are subject to some degree of drying."

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

The substrate should be prepared by suitable mechanical preparation techniques such as high pressure water, breakers, grit blasting, scabblers, etc. All absorbent surfaces must be well saturated with clean water, but free of any surface water or puddles prior to the application of SikaGrout® GP AU.

Concrete, mortar and stone
Surfaces must be sound, clean, free from frost, oils, grease, standing water and all loosely adhering particles and other surface contaminants.

Metal surfaces (iron and steel)
Surfaces should be clean, free from scale, rust, oil and grease.

MIXING

Place about 70–80 % of the premeasured clean water (depending on consistency required – refer to "Mix Ratio") into a clean container and gradually add the whole bag of SikaGrout® GP AU into it while continuously mixing. Add the remaining water until the desired consistency is obtained. Mix for 3–5 minutes with a low speed drill (500 rpm max.).

APPLICATION

After mixing, stir lightly with a spatula for a few seconds to release any entrapped air. The grout is then poured immediately into the prepared formwork. When carrying out baseplate grouting, ensure sufficient pressure head is maintained for uninterrupted mortar flow. For formwork repair, the prepared formwork must be firmly in place and kept watertight. When placing grout over a large area, it is important to maintain a continuous flow throughout. Work sequence must be properly organised to ensure an uninterrupted flow. In large areas, SikaGrout® GP AU may be pumped using heavy duty diaphragm pumps. Screw feed and piston pumps may also be used.

Specific Areas of Application

Grouting under baseplate	Flowable consistency
Formwork grouting - pouring method	Flowable consistency
Formwork grouting - prepacked method	Flowable / Plastic consistency
Grouting anchor bolts	Plastic / Stiff consistency
Dry packed / Precast grouting	Stiff consistency

Grouting large volumes: For sections thicker than 100 mm, it is necessary to fill ikaGrout® GP AU with graded 10 mm silt free aggregates o minimise temperature rise generated during the during stage. The quantity of aggregates should not exceed 1 part aggregates to 1 part SikaGrout® GP AU by weight. For such mixes, a conventional concrete mixer and pump may be used. To further ensure that air entrapped during mixing is allowed to fully escape, it may be necessary to make breather holes. Use steel rods or chains to assist the flow of grout where necessary. Preliminary trials are recommended.

CURING TREATMENT

When formwork type repair is used, leave the formwork in place for at least 3 days. Upon removal of the formwork, cure the exposed surfaces
immediately with Antisol® curing compound or use other approved curing methods.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with water immediately after use. Hardened or cured 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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