SDP Grout

For Dry Pack, Plastic or Low Flow consistencies

Description

SDP Grout is a blend of sand and binders for easy production of a dry pack, plastic or flowable, slightly expansive, portland cement grout by the addition of water only.

Special Features

SDP Grout expands in the plastic phase up to final set, thus ensuring positive contact of the hardened grout to encasing elements.

- Contains no corrosive chemicals
- Contains no ferrous metal
- Free expansion up to 3%
- High strength
- Non-Bleed
- Graded for easy compaction and smoothing

Typical Uses

SDP Grout is suitable for grouting easy access, smaller column bases, machine bases or skid mountings, ferrule holes, honeycombed concrete, rails, beams, bridge bearings, concrete repairs and voids.

Advantages

Controlled Expansion

This is achieved by positive chemical reaction. The delayed formation of tiny expansive gas bubbles within the grout mix continues throughout the initial setting period lasting about 4 hours.

Positive Surface Contact

Positive surface contact between the **SDP Grout** and the adjoining face of members, such as column bases, machine bedplates and other components is assured. This important feature develops from the expansion of the grout before hardening takes place. The expansion (up to 3% free) when restrained results in uniform distribution of the grout matrix leaving the hardened material tight and in uniform contact with the surrounding surfaces.

Compliance

SDP Grout complies to ASTM C1107/CRD-C621

Volume control	Grade A – expands during set
Consistency	Dry pack, thixotropic, pourable
Strength	Exceeds 34.5 MPa at 28 days (see table below)
Temperatures	May be placed at 4°C to 32°C

No Corrosive Effect

SDP Grout is an effective corrosion inhibitor. Completion of the chemical reaction during the initial set period leaves no metallic residue, thus, no source of electrolytic action remains to cause corrosive attack in the case of steel or iron surfaces.

SDP Grout contains no ingredients that will have an adverse effect on the potability of water, as per normal concrete.

Non Bleed

Being non-bleeding care must be taken that the fluid grout does not loose water by "suck" of encasing structural elements. Accordingly all concrete, brick, plaster or similar materials must be soaked to be saturated but without standing water at the surface.

Samson Technologies cc
Unit 4, Trevallyn Park East, Hyskraan Close, Kya Sands, Randburg, ZA
Tel: +27 (0)11 462 2666 **Email:** info@samson.co.za **Web:** www.samson.co.za

Warranty
Samson warrants that its products will perform as declared in its literature and this warranty extends only to the replacement of any of its products that may be proven to be defective.
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Physical Properties

Fresh State

When mixed with 4 litres of water per 25kg bag of **SDP Grout** powder the following typical properties are achieved (at 25°C)

Free expansion	up to 3 % (linear)
Initial set	2 – 4 hours
Final set	4 – 6 hours
Wet density /m^3	2 250 – 2 300kg

Hardened State

SDP Grout in laboratory conditions typically achieves the strengths illustrated below:

Compressive Strength

	16%	**14%**
1 day	22 MPa	32 MPa
3 days	40 MPa	50 MPa
7 days	50 MPa	60 MPa
28 days	65 MPa	75 Mpa

Flexural Strength (7 days)

7 to 8 MPa

Estimating Data

One 25 kg bag of **SDP Grout** will product approximately 28 kilograms plastic grout with a wet volume of approximately 13 litres. For each cubic metre of grout allow approximately 80-82 bags of **SDP Grout** powder.

Installation Detail

Preparation

All areas to be grouted must be free of grease or dirt and the concrete must be well soaked for several hours before commencement of grouting. Failure to do this will result in migration of grout mix water to dry adjacent concrete.

Mixing Instructions

Use mechanical mixing to assure best results. A rolling drum mixer, pan mixer, or slow speed drill fitted with an agitator are suitable. Always add dry powder to the water to avoid lumps and dry spots.

Thorough mixing is essential for achieving maximum results. **SDP Grout** should be placed within half an hour of mixing. During that time, keep material in mixer well agitated. Do not add water to regain workability, discard any grout that is too stiff to allow placement.

SDP Grout may be mixed to various consistencies as required. The following water addition rates for one 25kg bag unit are suggested as a guide:

Flowable grout	± 3.5 – 4 L
Plastic mortar	± 3 L
Dry-pack mortar	± 2 – 2.5 L

Placing Instructions

Pourable SDP Grout may be rodded or strapped into restrained sections. High points must be adequately vented to allow entrapped air to escape. Provide a pouring head-board to promote flow under plates and establish a receiving reservoir at opposite side of plate.

Plastic SDP Grout mortar may be rodded into place or trowel handled where freedom of movement permits. Wooden tamping tools are recommended and insertion of the grout in lifts will eliminate voids and facilitate compaction.

Dry pack SDP Grout mortar must be firmly pressed or rammed into place. Use metal or hardwood tamping tools and suitable trowel equipment. Consistency should allow pressuring by hand into firm ball without cracking.

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Curing
All exposed areas of grout should be covered immediately after placement, until set, after which it should be coated with a good quality curing compound.

Limitations
SDP Grout is not suited to difficult long flow paths. **HS60 Grout** and **MS40 Grout** should be selected for such situations, Typically bases of over 500 x 500 mm dimensions should be grouted with fluid grout. On vertical surfaces, lifts of about 30mm will be required to avoid slumping. If 100mm or more is to be filled do not place grout in a single lift since heat of hydration may induce thermal cracking.

Packaging, Storage and Shelf life
25 Kg polylined woven bags can be kept in dry storage conditions and for 1 year.

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