

SP1

Superplasticiser for the production of high workability concrete

Product Description

SP1 is a liquid superplasticiser for concrete and cement-based mixtures. SP1 is formulated from carefully selected raw materials and is manufactured under controlled conditions to give a consistent product. It is based on the soluble salt of a polymeric sulphonate. SP1 complies with the requirements of ASTM C 494 Type A & F.

A litre weighs approximately $1.23\text{kg} \pm 0.03\text{kg}$.

Dispersion

SP1 is an extremely powerful deflocculating agent and operates by dispersing cement into its primary particles, which dramatically increases the flow characteristics of the cement paste.

It is particularly useful for imparting extreme workability to concrete mixes so that large or difficult pours can be made with little or no vibration. In addition, it can be utilised to effect large water reductions in concrete of normal workability to achieve higher early and subsequent strengths. Low shrinkage grouts can also be obtained by effecting water reductions without decreasing flow characteristics.

Product Advantages

- SP1 will produce fluid concrete (180 to 200mm slump) at the same water-cement ratio of 0 to 30mm slump untreated concrete.
- This spectacular workability improvement implies many advantages in precast, ready-mixed and special concretes:
- Exceptional compressive and flexural strengths are obtainable with high slump (fluid) concretes.
- High slump concrete can be produced with very limited or no bleeding while segregation is virtually eliminated.
- SP1 reduces and almost eliminates the vibration work necessary for concrete compaction, saving time and money.
- SP1 makes it possible to pump concrete mixes with low water-cement ratios and moderate cement contents. SP1 speeds up the rate of slip forming and reduces concrete placement time.

Packaging

SP1 is available in bulk or in 205L drums. Protect from freezing. Once frozen, the product should be thawed out slowly and re-mixed thoroughly prior to use. Shelf life is minimum 12 months in manufacturer's containers.

Addition Rates

The addition rates of SP1 can vary from 0.5 to 2.5L / 100kg cementitious materials, depending on job conditions and scope of work. For best results, SP1 should be introduced last after the concrete has been mixed for 20 seconds or longer. Trial mixes are recommended when considering SP1 usage to determine optimum admixture dosage, required percentage of fine aggregate, and setting times.

Method of Use

SP1 is supplied ready for use. It should be added to concrete mixes either during the mixing cycle at the same time as the water or the aggregates or alternatively it should be added in its supplied form to a normal concrete mix a few minutes before the pour is made. In the latter case a mixing cycle of at least 2 minutes should be carried out.

When using flowing concrete, temporary increases in form work pressure will occur and this should be taken into account at the design stage.

Compatibility with Other Admixtures

SP1 is compatible with all portland cement systems and is effective in mixes incorporating PFA, and Blast Furnace Slag. SP1 is compatible in concrete with all water reducers currently available. SP1 is not to be used with polycarboxylate-based admixtures such as ADVA®.

Dispensing Equipment

Please contact your local GCP representative for further information regarding the dispensing equipment for this product.

Health and Safety

See SP1 Material Safety Data Sheet or consult GCP Applied Technologies.

gcpat.vn | For technical information: asia.enq@gcpat.com

Australia 1800 855 525 New Zealand +64 9 448 1146 China Mainland +86 21 3158 2888 Hong Kong +852 2675 7898 India: Chennai +91 44 6624 2308 Delhi +91 124 402 8923 Indonesia +62 21 893 4260 Japan +81 3 5226 0231 Korea +82 32 820 0800 Malaysia +60 3 9074 6133 Philippines +63 49 549 7373 Singapore +65 6265 3033 Thailand +66 2 709 4470 Vietnam +84 8 3710 6168

We hope the information here will be helpful. It is based on data and knowledge considered to be true and accurate, and is offered for consideration, investigation and verification by the user, but we do not warrant the results to be obtained. Please read all statements, recommendations, and suggestions in conjunction with our conditions of sale, which apply to all goods supplied by us. No statement, recommendation, or suggestion is intended for any use that would infringe any patent, copyright, or other third party right.

ADVA is a trademark, which may be registered in the United States and/or other countries, of GCP Applied Technologies, Inc. This trademark list has been compiled using available published information as of the publication date and may not accurately reflect current trademark ownership or status.

© Copyright 2016 GCP Applied Technologies, Inc. All rights reserved.

Printed in Singapore | 03/16 | 200-SP1-242

GCP Applied Technologies Inc., 2325 Lakeview Parkway, Alpharetta, GA 30009, USA

GCP Vietnam Company Ltd, Lot B14, Section B, Street No. 12, Xuan Thoi Son Small Scale Arts & Crafts Group, National Road 22 Xuan Thoi Son Village, Hoc Mon District, Ho Chi Minh City

This document is only current as of the last updated date stated below and is valid only for use in Vietnam. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.vn. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.