



SIDHYA ASIA
CHEMICAL PRIVATE LIMITED



PRODUCT DATA SHEET

Sidhya® Plast 405 SD

High performance water reducer for production of Concrete products

Description

Sidhya® Plast 405 SD is a high-performance water reducer suitable for production of semi dry technology based concrete production. Sidhya® Plast 405 SD allows to lower water cement ratio of mix designs and paving stones and masonry blocks. The product helps to produce high quality and durable semi dry concrete products. Sidhya® Plast 405 SD promotes faster strength development and henceforth reduces the curing time for manufacturers.

Applications

Sidhya® Plast 405 SD is a high performing polymer enables significant reduction in water cement ratio. The product improves the compressive strength and durability of the finished concrete products and can be mainly used for the following applications:

- Production of high-quality Interlocks/Pavers
- Production of high-quality kerb stones and masonry blocks.
- Production of high strength semidry concrete products.
- Can be used to improve the curing times of products.
- Improves the packing of mix design and makes it denser and more durable.
- Production of multicolor face and base mix of interlocks.

Mixing

Sidhya® Plast 405 SD is not recommended to be added along with dry aggregates and cementitious materials. Sidhya® Plast 405 SD should be added to the batch post addition of the mixing water has been added. To achieve the optimum performance, the product is recommended to have minimum wet mixing period of 60 seconds depending on the mixing conditions.



Technical Specifications

Color	Amber to Light Brown
Appearance	Homogenous
State	Liquid
Specific Gravity	1.09 ± 0.02 @ 20°C
pH	Minimum 5.0
Chloride Ion Content	<0.10%
Alkali content	<1.5 g Na ² O equivalent / liter of admixture.
Shell Life	12 months from the date of manufacturing if stored as per recommendations and original sealed packing.

Advantages

Sidhya® Plast 405 SD is a new generation polymer-based technology which improves the dispersion of cementitious materials and provides the following advantages:

- Increases the early strength of Concrete products.
- Suitable for faster production.
- Reduces the curing time.
- Increases the density of concrete products.
- Improves the packing density and compaction factor mix.
- Improves the durability of concrete products.
- Contributes to economic benefits.
- Increases the production efficiency.

Dosage

The recommended dosage of Sidhya® Plast 405 SD should be between 0.2% to 2.0% by weight of cementitious. Effects of over dosage can delay the setting time and bulging of concrete products.

The optimum dosage of the Sidhya® Plast 405 SD should be determined by preliminary trials at site. The dosages above recommendations can be used if agreed by the client and consultant for special applications along with consultation of Sidhya® technical team.

Compatibility

Sidhya® Plast 405 SD is compatible with all types of cement and binders such as GGBS, Ultra Fine GGBS, Micro silica, Fly ash and Metakaolin. Sidhya® Plast 405 SD when using along with other Sidhya® products should be added separately and must not be blended prior to addition.

Important: It is important to conduct preliminary trials when using more than one admixture. Do not combine Sidhya® Plast 405 SD with any Naphthalene based admixtures.



Technical Compliances

Sidhya® Plast 405 SD conforms to the requirements of IS 9103: 2007 & BS EN 934-2.

Storage

Sidhya® Plast 405 SD has a shelf life of 12 months provided the temperature is kept between +1.0°C to +50.0°C. Please contact Sidhya® technical team if the product falls outside the temperature range.

Packaging

Sidhya® Plast 405 SD is available in 200 liters drums, 1000 litres IBC and bulk tanker. Please contact our Sales Representative for customized packing and more details

Legal Notice

The recommendations related to the application and recommendations are given in good faith based on Sidhya's current experience and knowledge of the products. The benefits stated about the product are only applicable if guidelines provided by Sidhya for storing, handling and mixing are followed under normal conditions. 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 is always advised to test the product's compatibility and suitability for the intended requirements and application. Sidhya reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. 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.

Sustainability, Health and Safety

End use of the product must read the Material Safety Data Sheet (MSDS) of the product. The MSDS provides information and advice on storage, handling and disposal of the product and instructions related to physical ecological, toxicological and other safety related data.

Product Data Sheet

Sidhya Asia Chemical Pvt Ltd.
Sidhya® Plast 405 SD
September, 2024, Version 01
Item No. I/8122

✉ info@sidhyaasia.com

🌐 www.sidhyaasia.com

📍 No. 18/2A2, Nallur Village, Sholavaram, Chennai 600067, Tamil Nadu, India.

📍 526/10 (560/1A), Centuary Plaza Anna Salai, Teynampet, Chennai 600018, Tamil Nadu, India.

