



SIDHYA ASIA
CHEMICAL PRIVATE LIMITED



PRODUCT DATA SHEET

Sidhya® Plast RC 111

High Performance Superplasticizer for Ready mix concrete.

Description

Sidhya® Plast RC 111 is a superplasticizer designed to improve the workability and pumping properties of fresh concrete. The product is suitable for a wide range of concrete grades and provides high retention properties. Sidhya® Plast RC 170 is based on new generation polymers which provides low viscosity and improves the durability properties of the concrete. The unique technology of the product makes it exceptional for production of high-quality concrete.

Applications

Sidhya® Plast RC 111 is a superplasticizer designed for production of high workability concrete with high reduction of water in mix design. The product improves the fresh concrete properties and can be used pumping high slump concrete in flooring, roof slabs and columns. The product is mainly used for the following applications:

- Production of high-quality concrete.
- Ready-mix concrete with high slump requirements.
- Used in the production of ready mix concrete with high early strength.
- Concrete requires long retention and workability time.
- Concrete with high durability requirements.
- Concrete with high pumping concrete requirements.
- Production of different grades of ready mix concrete.

Mixing

Sidhya® Plast RC 111 is not recommended to be added along with dry aggregates and cementitious materials. Sidhya® Plast RC 111 should be added to the concrete mixer post 70% 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

Chemical Base	Aqueous solution of modified Polycarboxylate acids
Color	Amber to Light Brown
Appearance	Homogenous
State	Liquid
Specific Gravity	1.03 ± 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 RC 111 is new generation polymer-based technology which improves the dispersion of cementitious materials and provides the following advantages:

- Low viscosity of concrete suitable for different grades.
- Suitable for production of high slump concrete.
- Higher water reduction produces high strength concrete.
- Reduces shrinkage cracking and creep.
- Improvement in workability and retention time.
- Reduces risks of Carbonation.
- Improves the durability of concrete.
- Increase in flowability and cohesion properties.
- Highly efficient with low dosages.

Dosage

The recommended dosage of Sidhya® Plast RC 111 should be between 0.2% to 2.0% by weight of cementitious. Effects of over dosage can delay the setting time and lead to bleeding and segregation in fresh concrete properties.

The optimum dosage of the Sidhya® Plast RC 111 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 RC 111 is compatible with all types of cement and binders such as GGBS, Ultra Fine GGBS, Micro silica, Fly ash and Metakaolin. Sidhya® Plast RC 111 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 RC 111 with any Naphthalene based admixtures.



Technical Compliances

Sidhya® Plast RC 111 conforms to the requirements of IS 9103: 2007, ASTM C494 Type G & BS EN 934-2.

Storage

Sidhya® Plast RC 111 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 RC 111 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 RC 111
September, 2024, Version 01
Item No. I/0780

✉ 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.

