

Technical Data Sheet

LRPS-1000S PLUS

Long Slump Retention polycarboxylic based super plasticizers

Type A / Type D Admixture (C 494/C 494M – 04)

【Description】

LRPS-1000S Plus is a developed product; based on LRPS 1000S, specially designed for building materials in Sri Lanka, which is based on a unique carboxylic ether polymer with long lateral chains. An electrostatic dispersion occurs at the start of the mixing process of concrete. However, the presence of the polymer lateral chains, generate a steric hindrance which stabilizes the cement particle's capacity to separate. This mechanism considerably reduces the water demand in flowable concrete.

【Uses】

- LRPS-1000S Plus is developed for use in high performance concrete where increased compressive strength is required.
- Specially designed low grade concrete.
- Particularly suitable for use in high performance ready-mix concrete.

【Advantages】

- Increased compressive strength and flexural strength at all ages.
- Improved adhesion to reinforcing and stressing steel.
- Better resistance to carbonation.
- Lower permeability.
- Better resistance to aggressive atmospheric conditions.
- Reduced shrinkage.
- Increased durability.

【Properties】

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|---|------------------------|
| ● Appearance | Dark Brown liquid |
| ● Specific gravity (g/cm ³) | 1.11~1.15 at 25°C |
| ● pH value | 4.0~6.0 |
| ● Chloride content (%) | Nil |
| ● Alkali content | typically less than 5% |

【Typical dosage】

The normal dosage range of LRPS-1000S Plus is between 0.2 liters to 1.0 liters per 100 kg of cementations materials. The optimum dosage to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use.

【Use at other overdosing】

Dosages outside the normal range can be used to meet particular requirements. Please contact Castech Technical Service Department for advice in these cases.

【Instructions for use】

- Compatibility
LRPS-1000S Plus should not be used in conjunction with any other admixture unless prior approval is obtained from local Castech office.
LRPS-1000S Plus is suitable for use with all types of Portland cements, OPC, SRC cements

- cement replacement materials such as PFA, GGBFS and micro-silica.
- **Mixing**
 - a) When used at the mixing plant, LRPS-1000S Plus should be added in the mixing water.
 - b) In some instances, e.g. addition to ready mix concrete on site, LRPS-1000S Plus can be added directly in the truck mixer and mixed at maximum speed for an extra 5 to 10 minutes till a proper mixing is achieved.
 - c) For some special self-compacting concrete, a viscosity enhancer maybe helpful. Please contact Castech for suggestion.
- **Dispensing**

The correct quantity of LRPS-1000S Plus should be measured by means of a recommended dispenser. The admixture should then be added to the concrete with the mixing water to obtain the best results.

【Estimating】

200 liters drum and 1000 liters tank

【Storage】

LRPS-1000S Plus has a minimum shelf life of 12 months provided the temperature is kept within the range of 2°C to 50°C. If the temperature of the product falls outside this range then contact Castech for advice.

【Precautions】

- **Health and safety**
 - a) LRPS-1000S Plus does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes.
 - b) Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - Do not induce vomiting.
- **Fire**

LRPS-1000S Plus is water based and non-flammable.
- **Cleaning and disposal**
 - a) Spillages of LRPS-1000S Plus should be absorbed onto sand or soil and transferred to suitable containers. Remnants should be hosed down with large quantities of water.
 - b) The disposal of excess or waste material should be carried out in accordance with local legislation under the guidance of the local waste regulatory authority.

【Technical support】

CasTech offers full technical support package to specifiers, contractors and end users, as well as technical assistance on site and after sales constructions.

CasTech provides detailed method statements on all its products for use in various applications. These must be referred prior to starting the work. The information above is summery intended for guidance only.

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