

Technical Data Sheet

LRPS-3000.S

Long Slump Retention polycarboxylic based super plasticizers Type D and Type G Admixture (C 494/C 494M – 04)

1.0 Description

LRPS-3000.S is a developed product based on LRPS-3000, which is specially designed for building materials in Sri Lanka. It 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.

2.0 Uses

- LRPS-3000.S is developed for use in high performance concrete where increased early and ultimate compressive strength is required.
- Specially designed for self-compacting concrete.
- Particularly suitable for use in high performance ready-mix concrete.

3.0 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.

4.0 Properties

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| ● Appearance | Brown liquid |
| ● Specific gravity (g/cm ³) | 1.12 ± 0.03 at 25°C |
| ● pH value | 5 ± 1 |
| ● Chloride content (%) | 0.03%(w/w) |
| ● Alkali content | typically less than 5% |

5.0 Typical dosage

The normal dosage range of LRPS-3000.S is between 0.5 liters to 2.0 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.

6.0 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.

7.0 Instructions for use

7.1 Compatibility

LRPS-3000.S should not be used in conjunction with any other admixture unless prior approval is obtained from local Castech office.

LRPS-3000.S is suitable for use with all types of Portland cements, OPC, SRC cements and cement replacement materials such as PFA, GGBFS and micro-silica.

7.2 Mixing

- a) When used at the mixing plant, LRPS-3000.S should be added in the mixing water.
- b) In some instances, e.g. addition to ready mix concrete on site, LRPS-3000.S 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.

7.3 Dispensing

The correct quantity of LRPS-3000.S 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.

8.0 Packaging

200 liter drums and 1000 liter tanks

9.0 Storage

LRPS-3000.S 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.

10.0 Precautions

10.1 Health and safety

- a) LRPS-3000.S 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.

10.2 Fire

LRPS-3000.S is water based and non-flammable.

10.3 Cleaning and disposal

- a) Spillages of LRPS-3000.S 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.

11.0 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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