

REC PLAST 314

SPECIAL DISPERSING ADMIXTURE FOR CONCRETE MANUFACTURED DRY CAST & SEMI-DRY APPLICATIONS

Description

REC PLAST 314 is a multi-component admixture specifically formulated to be used in the manufacture of "dry " or " semi- dry" vibrated and pressed concrete products such as paving and masonry blocks, bricks and architectural masonry to assist compaction, disperse cement, color and fine aggregate particles, and help reducing efflorescence and increasing water tightness. Damage by handling, strapping and pelleting is reduced, and the resistance to abrasion is significantly enhanced. **REC PLAST 314** does not contain calcium chloride. **REC PLAST 314** is also a plasticizing admixture that provides improved placement and lubricity to semi-dry concrete products. **REC PLAST 314** disperses the mix to provide added workability while lowering the overall water to cement ratio. This allows easier hydration of the cement particles and results in improved higher ultimate compressive strengths. **REC PLAST 314** works on very low water/ cementitious mixtures.

PROPERTIES

- Lowers moisture absorption.
- Minimizes efflorescence.
- Improves appearance and texture.
- Improves consistency.
- Increases concrete cohesion.
- Enhances the bonding of double layers applications.
- Improves durability due to effective dispersion.
- Can be used to gain economies due to possible cement reduction without impairing mechanical properties.
- Produces high early strengths and can significantly increase mold utilization in semi dry and precast works.
- Enhances performance of semi dry concrete with use of recycled aggregate and other materials.
- Optimizes the performance of semi-dry concrete with use of supplementary cementitious materials.
- Reduced curing period/steam.
- Provides economical reduction of curing costs.
- Improves the production cycle by providing reduced cycle time due to proper filling and response to vibration.
- Reduces loss of manufactured products by providing improved "green" strength and sharper edge detail
- Use in sustainable application where recycled or alternative materials are applied.

SCOPE OF USE

REC PLAST 314 is recommended for all cement types, in the following areas:

- Concrete masonry block.
- Architectural concrete panels.
- Roof tiles.
- Interlock Pavers.
- Precast concrete.
- Colored concrete.
- Concrete with low W/C.
- Concrete with GGBS, fly ash, meta kaolin and silica fume.
- Hollow core precast concrete elements.
- Reduction in cement content.
- Kerbstones.

Technical Information

Appearance	Liquid (Brown)
Specific gravity at 25°C	1.08 ± 0.01
Chloride content	Nil (BS 5075)
Air entrainment	Up to 2% depending on the admixture dosage and mixture proportioning

APPLICABLE STANDARDS

REC PLAST 314 complies with ASTM C494 – Type A, BS 5075 & BS EN 934.

INSTRUCTIONS FOR USE

REC PLAST 314 is totally miscible in water. **REC PLAST 314** is normally dosed as supplied at a rate of 0.4-2.0% of 100 kg of cement. Other dosages may be required depending on specific conditions. For best results, add **REC PLAST 314** after pre- wetting the mix aggregates and cement with part of the required hydration water. Avoid addition of **REC PLAST 314** to dry cement mix if possible. Mix components for at least two minutes to provide optimum lubricity to the mix. For high early strength of concrete, use a lower w/c and a higher **REC PLAST 314** dosage.

COMPATIBILITY

REC PLAST 314 is compatible with all types of Portland cement, fly ash, silica fume, ground granulated blast furnace slag, fibers and approved air entraining, accelerating, retarding, and high- range water-reducing admixtures. **REC PLAST 314** can be used in all types of Portland and sulfate-resisting cements, including those containing supplementary cementitious materials. For use with other cements, contact the company's technical service department. **REC PLAST 314** should be dispensed directly into the mixer and should not be pre- mixed with other admixtures. If other admixtures are to be used in concrete containing **REC PLAST 314**, they must be dispensed separately. Consult the company's technical department for advice.

DOSAGE

Trials should be conducted to determine the optimum dosage of **REC PLAST 314** for a particular mixture. A dosage of 0.4- 2.0% of 100 kg of cementitious materials is recommended. This may be changed to higher dosage in high ambient and mixture temperature conditions.

EFFECT OF OVER DOSE

Severe over dose of **REC PLAST 314** will result in the following:

- Slight delay of the initial and final setting of the concrete mixture
- Slight increase in air entrainment.
- Decreases early compressive strength.

Providing it is properly cured, the ultimate strength of the concrete will not be adversely affected and will generally be higher than that of the normal concrete.

DISPENSING

It is preferable that liquid admixtures for concrete should be introduced into a mixer by means of automatic dispensing equipment.

PACKAGING

Rec Plast 314 is supplied in barrels.

Storage tanks can be provided for bulk use.

STORAGE

REC PLAST 314 can be stored up to 1 year from manufacturing date if it is kept sealed, out of direct sunlight and protected from extreme temperatures.

HEALTH & SAFETY

In case of frost, the product recovers its properties after progressive thawing and homogenizing by agitation. In case of contact with skin or eyes, rinse thoroughly with water. If irritation persists, seek medical attention. If swallowed, do not induce vomiting and seek medical attention.

QUALITY STATEMENT

All our products are manufactured to comply with our internal QA/ QC program and quality management system to ensure consistency and quality.

DISCLAIMER

While the company guarantees its products against defective materials, the use and application of these products are made without guarantee since the conditions of their application are beyond its control. It is recommended to verify with the company that the product is suitable for the intended use, and that this Data Sheet version is the latest one. The company may modify it without any prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's head office located in Lahore.

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