

REC PLAST M-103

Water reducing & retarding admixture for concrete

PRODUCT

Rec Plast M-103 is a sustainable multi-component admixture which is carefully formulated to enhance the quality and performance characteristics of plastic and hardened concrete. Its unique chemistry results in more complete and efficient hydration of the cementitious materials in the concrete matrix, and provides improved strength, durability, finishability and overall appearance.

Rec Plast M-103 supports the sustainability of concrete by extending its range of economic and useful applications. Its sustainable properties at the material production level continuing to make further reductions in their environmental impacts, through plant efficiencies, technology uptake and embracing an environmental awareness culture.

Dispersing the cement particles evenly and efficiently throughout the mix makes the cement hydration process more efficient, increasing the strength gain overall. As a result, with the use of admixtures, a lesser quantity of cement is required to achieve the same strength as for a mix without admixtures.

PROPERTIES

- Improves the quality of concrete by decreasing water cement ratio for a given workability
- Increases early and ultimate compressive and flexural strengths
- Provides superior concrete finishability
- Improves workability and ease of placement and consolidation
- Improves pumpability of concrete
- Provides uniform control of setting characteristics
- Reduces cracking and shrinkage
- Increases relative freeze-thaw durability

SCOPE OF USE

Rec Plast M-103 is recommended for all areas of use of concrete in the ready-mix industry:

- Super slump retaining concrete with equal or less water content than conventional admixtures
- Concrete mixtures containing silica fume, GGBS, or PFA
- Concrete with high resistance against aggressive media
- Long distance transport
- Hot weather concreting
- Highly durable concrete
- Mass concrete
- Pumped concrete

CHARACTERISTICS

Appearance	Liquid (Dark Brown)
Specific gravity at 25°C	1.13 ± 0.03
	1.098 ± 0.02 (KSA)
Chloride content	NIL – BS 5075/EN 934-2

APPLICABLE STANDARDS

ASTM C 494 Type D
BS EN 934-2
BS 5075: Part 3

INSTRUCTIONS FOR USE

Rec Plast M-103 should be dispensed after all concrete constituents are charged in the central mixer, preferably after approximately 70% of mixing water addition.

DOSAGE RATES

Range of dosage rates: from 200 to 1100ml per 100 kg of cementitious content.

Dosage above the recommended values can be employed. Still, the required dosage for a specific job with controlled delay in setting and workability should be determined by in-situ trials.

Admixture demand varies with w/b of the concrete, cement type, pozzolanic materials and ambient temperature.

Trials are to be conducted prior to use in order to determine required performance, including workability retention, setting, and strength development.

EFFECT OF OVERDOSE

Overdose of **Rec Plast M-103** may result in the following:

- Delay of initial setting
- Higher workability
- Impair consistency & cohesion

Dependant upon the level of overdose, concrete mixture details and conditions involved.

COMPATIBILITY

Rec Plast M-103 is compatible with all types of Portland cement, class C and F fly ash, silica fume, ground granulated blast furnace slag, calcium chloride, fibers and approved air entraining, accelerating, retarding, and high-range water reducing admixtures.

For best results, each admixture must be dispensed separately into the concrete mix.

Rec Plast M-103 is compatible with naphthalene



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sulfonate- and melamine sulfonate-based superplasticizers.
Consult Reckon's technical dept. for advice.

PACKAGING

Rec Plast M-103 is supplied in:
1000 liter containers.

STORAGE

Rec Plast M-103 can be stored up to 1 year from manufacturing date under cover, 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 prior notice. Technical characteristics are listed for guidance only. For more information, please contact the company's office in your location.

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