

# REC NEPHTHAPLAST 77

## High-range water reducing/superplasticizing admixture for fluid concrete

### PRODUCT

**Rec Nephthaplast 77** is a chloride- free, high- range superplasticizer based on synthetic polymers that has a strong dispersing power over the fine particles of concrete, thus allowing the concrete to achieve higher mechanical properties. It secures a powerful deflocculating and dispersing action of cement, which facilitates the production of fluid and high flow ability concrete without segregation.

### PROPERTIES

- **Rec Nephthaplast 77** produces concrete of similar workability up to 40% less water
- Increase concrete cohesion
- Increase compressive, tensile, and flexural strengths
- Produces flowable concrete
- High strength, especially at low W/C, can be significantly increased
- High workability-ease of placing and compaction without segregation
- Good adhesion - ease of pumping. No bleeding
- Good workability - excellent surface appearance
- Minimal bleed water - excellent concrete quality

### SCOPE OF USE

It is recommended for all types of portland cement and sulfate resisting cement in the following areas:

- Heavily reinforced concrete works
- Paving and industrial floor
- Slipform concrete
- Ready mixed concrete
- All concrete requiring a fluid consistency
- Concrete with low W/C
- Precast concrete
- Works well with silica fume, fly ash and slag cementitious replacement
- Structures with close reinforcement where vibratory efforts are ineffective
- Improvement of concrete workability on site

### CHARACTERISTICS

Appearance	Liquid (Brown)
Specific gravity at 20°C	1.220 ± 0.03
Chloride content	NIL- BS 5075/EN 934-2

### STANDARDS

**Rec Nephthaplast 77** complies with: ASTM C - 494 - Type D&G. BS 5075 Part 1, BS EN 934, Part 2. ASTM C1017 Type II

### INSTRUCTIONS FOR USE

**Rec Nephthaplast 77** is totally miscible in water. No extension to the batching time is necessary. Do not add to dry cement.

**Rec Nephthaplast 77** can be used on site to produce fluid concrete to a required workability.

Make sure that the concrete is agitated for not less than 2 minutes at 15- 20 rpm before casting.

### DOSAGE RATES

Trials should be conducted to determine the optimum dosage of **Rec Nephthaplast 77** for a particular mixture. A dosage of 600 to 2500 ml per 100 kg of cementitious materials is recommended. This may be changed to higher dosage in high ambient and mixture temperature conditions.

### EFFECTS OF OVER DOSING

Delay in initial and final setting time, and higher workability.

### COMPATIBILITY

**Rec Nephthaplast 77** 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 Nephthaplast 77** 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 Nephthaplast 77** they must be dispensed separately. Consult the company's technical dept. for advice.

### PACKAGING

**Rec Nephthaplast 77** is supplied in:

- Bulk, barrels
- Storage tanks can be provided for bulk use.

### STORAGE

**Rec Nephthaplast 77** 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.



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## 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.

## NOTE

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