

SOPRA Fluid FC

High Range Water Reducing Superplasticizer

Description

SOPRA Fluid FC is a chloride free liquid superplasticizer based on naphthalene designed to act as a powerful water reducing agent and to accelerate the early strength development of concrete.

Uses

- * Precast concrete.
- * Prestressed concrete.
- * Concreting at low temperatures.

Advantages

- * High strength hardening accelerator.
- * Improves water penetration resistance.
- * Increases mechanical strength.
- * No segregation or bleeding.
- * Improves surface finish.
- * Provides upto 25 % free water reduction.

Standards Compliance

ASTM C 494, Type F & C
BS 5075 Parts 1 & 3

Packaging

210 litre drums or 1000 litre containers.
Tanker loads are also available.

Storage

12 months storage life when stored in original containers at between 2 and 35 °C in a shaded place.

Properties

Appearance	Brown Liquid
Specific gravity @ 25 °C	Typically 1.21
pH	9.1 +/- 0.5
Chloride Content BS 5075	Nil
Flammability	Non-flammable

Performance Guidelines

Concrete with 350 kg Portland cement / m ³				
Dosage, l/100 kg of cement	0	0.8	1.2	1.5
Water, l/m ³	185	170	160	150
Water reduction, %	-	8	13.5	19
Slump, mm	40	70	75	65
Compressive strength @ 25 °C, N/mm ²				
1 day	9.2	12.2	14.5	16.1
7 days	22.5	37.3	39.4	42.0
28 days	31.1	44.0	47.3	50.8

Application Instructions

Dispensing

The correct quantity of SOPRA Fluid FC should be measured using a recommended dispenser. It should be added to the concrete mix with the mixing water to obtain the best results. For flowable concrete, best results are obtained when SOPRA Fluid FC is added after mixing the concrete. SOPRA Fluid FC can also be added in the truck mixer just before placing the concrete and then mixing again for at least two minutes before pouring.

Dosage

The normal dosage range is 0.6 - 2.0 litres per 100 kg of cement, including any cement replacement material. The optimum dosage of SOPRA Fluid FC to meet specific requirements should be determined by trials using the materials and conditions as encountered on site.

Overdosing

Exceeding the recommended dose of SOPRA Fluid FC will result in an increase in both retardation and workability, however, mechanical strength should be monitored.

Curing

Normal curing methods to protect concrete surfaces should be adopted.

Cleaning and Disposal

Spillages of SOPRA Fluid FC should be hosed down with large quantities of water or absorbed onto fine sand and disposed of in accordance with local legislation.

Precautions

Health and Safety

SOPRA Fluid FC is alkaline but non-hazardous. It should not be swallowed or allowed to come into contact with skin or eyes. Suitable protective goggles and gloves should be worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When contact with the skin is made, wash off immediately with soap and water. If swallowed, seek medical attention immediately, do not induce vomiting.

Technical Support

SOPRA provides on-site assistance and consulting services on projects when requested. Technical data sheets on other SOPRA products and guidance on their use are available on request.

Warranty

SOPRA products are guaranteed against defective materials and manufacture and sold subject to SOPRA standard terms and conditions of sale. Whilst SOPRA endeavours to ensure that any advice, information or recommendation given is correct, the company can not accept any liability either directly or indirectly arising from the use of its products, since the company has no control over the application of its products. Information contained in this document is given on the best current knowledge. SOPRA policy is one of continuous improvement and the company reserves the right to change its products without prior notice.