

SOPRA Axel CF

High Performance Chloride-Free Accelerator

Description

SOPRA Axel CF is a high performance chloride-free setting and hardening accelerator providing early mechanical strength. In wet concrete, **SOPRA** Axel CF improves resistance to frost attack and accelerates the setting time. Early strength is significantly increased at all temperatures for hardened concrete.

Uses

- * Concreting at low temperatures.
- * Enables mould release before full setting for precast non-slump concrete.
- * Suitable for reinforced and prestressed concrete.

Advantages

- * Compatible with all types of cement and cements containing clinker, blast furnace slag or micro silica.
- * Increases ultimate strength.
- * Saves up to 15 % of cement due to highly improved hydration process.
- * Enables earlier stripping of formwork.

Standards Compliance

ASTM C 494 Type C & F

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	Pale yellow liquid
Specific gravity @ 25 °C	Typically 1.12
pH	11 +/- 0.5
Chloride content BS 5075	Nil
Flammability	Non-flammable

Performance Guidelines

Dosage, l/100kg cement	0	1.3	2.0
Setting time @ 5 °C, hr			
Initial	10.0	6.5	4.5
Final	16.5	10.5	9.0
Setting time @ 10 °C, hr			
Initial	5.5	5.0	3.5
Final	10.5	7.5	6.5
Setting time @ 25 °C, hr			
Initial	3.5	2.5	2.0
Final	6.5	5.0	4.5
Compressive Strength, N/mm ² of 1 : 3 Mortar @ W/C 0.47			
1 day	10.6	13.1	16.2
3 days	18.0	24.4	28.7
7 days	32.1	33.9	36.2
28 days	36.1	38.7	40.2

Application Instructions

Dispensing

The correct quantity of **SOPRA** Axel CF should be measured by using a recommended dispenser. It should be added to the concrete with the mixing water.

Dosage

The normal dosing range is 0.6-2.5 litres per 100 kg of cement, including any cement replacement material. The optimum dosage of SOPRA Axel CF and the time before formwork removal for specific requirements should be determined by trials using the materials and conditions as encountered on-site.

Overdosing

Exceeding the recommended amounts will result in significant reductions in setting time and with large volumes, an early heat evolution. However, provided that adequate curing measures are taken, the ultimate strength of the concrete will not be impaired.

Curing

Normal curing methods to protect concrete surfaces should be adopted.

Cleaning and Disposal

Spillages of SOPRA Axel CF 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 Axel CF is slightly 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 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 with out prior notice.