



TechnoKem
tailor made

TechnoCrete FA

High Range Water Reducer
ASTM TYPE F & A

Product Description

TechnoCrete ES is guaranteed completely free of all forms of chloride and is supplied as a light straw coloured liquid.

The main active ingredient is an inorganic format.

Standards

TechnoCrete ES complies with BS 5075 Part 1 and ASTM C494 Type C.

Uses

To accelerate the setting and early strength gain of Portland cement concrete and mortar mixes without the introduction of chloride. Acts as a plasticiser, so gives significant increases in both ultimate and early strengths. Typical applications include precast concrete, concrete placed in cold weather, concrete for repairs, mortars for brickwork.

Advantages

- Chloride free, safe in prestressed and reinforced concrete
- Produces exceptionally high early strengths
- Plasticising action gives increased workability and/or increased strengths
- Early setting improves frost resistance
- Suitable for bricklaying mortar mixes
- Particularly effective in concrete at low temperatures

Properties

Specific Gravity	1.260 - 1.270@ 27 °C
Freezing Point	-16°C
Chloride content	Nil to BS 5075
Air Entrainment	< 1%

Compatibility with cements: May be used with all types of Portland cements. Not suitable for use with high alumina cement.

Acceleration : The addition of TechnoCrete ES to Portland cement concrete mixes accelerates both the setting and rate of strength gain. The strength improvements are most significant during the first 18 hours.

Long term effects : Accelerated corrosion testing of steel in concrete has shown that Techno Crete ES does not affect the protection of steel afforded by cement against corrosion even at four times the normal dose

Application Instructions

Dosage

The recommended dosage range for standard concrete and mortar mixes with all grades of Portland cement is 2.0 to 3.0 litres per 100 kg cement (see table).

Over Dosage

An overdose of double the recommended amount of Techno Crete ES will result in a slight increase in initial acceleration, but will not materially alter the ultimate strength or characteristics of the cured concrete or mortar.

Mixing

TechnoCrete ES should be stirred before use.

Dispensing

The correct quantity of TechnoCreteES should be measured by means of a recommended dispenser.

TechnoCrete ES should be added direct into the mixer. Best results are obtained when added at the same time as the mixing water.

Curing

Techno Cure WB, curing membrane or alternative methods such as polythene, water spray or wet hessian should be used.

Cleaning

Spillages of technoCrete ES can be removed with water.

Mix Design for M20										
Mix Ref.	Ambt.	Relative	Quantity in Kg/m ³							FA:CA by absolute vol of total aggregates
	Temp in °C	Humidity in %	Cement	Fly Ash	Water	River Sand	CA 20mm	CA 10mm	TechnoCrete	
Control	32	75	260	85	210	700	668	360	NIL	41.59
Water reduced 20%	33	68	260	85	168	697	738	397	4.25	38.5: 61.5
Test Results										
Mix Ref	Initial Slump in mm		Unit Wt. in Kg/m ³	Air Content in %	Slump after an hour in mm	Setting time in HH : Min		Comp. Strength in Mpa		
						Initial	Final	7days	28days	
Control	190		2290	1.2	40	7:00	12:20	15	25	
Water reduced (20%)	200		2345	1.8	120	9:00	15:00	20.5	30	

Application Procedure

TechnoCrete FA is supplied ready for use. For maximum dispersion throughout the mix, measured quantity of TechnoCrete FA mixed with remaining part of water should be added to pre wet cement aggregate mixture directly into the mixer & allow the mix to rotate for at least five minutes. It should not be added to the dry cement under any circumstances

Packaging

Available in 250kgs Barrel

Shelf Life

12 months if stored in original packing under shed and at normal ambient temperature

Health & Safety

Non-toxic, non-flammable, eco-friendly. In case of eye contact flush immediately with water, before approaching an ophthalmologist

Important: Technokem products are guaranteed against defective materials and are sold subject to its standard terms and conditions of sale. It is the Customer's responsibility to satisfy themselves by checking with the Company whether the information is still current at the time of use. The customer must be satisfied that the product is suitable for the use intended. All products comply with the properties shown on current Technical Literatures. However, Technokem does not warranty or guarantee the installation of the products as it does not have any control over installation or end use of the product. All information and particularly the recommendation relating to application and end use are given in good faith.

For Complaints/Suggestions:

Please write to our Customer Care Executive at

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