

## CX FAST SET M+

Melamine base Accelerating admixture for unreinforced cement concrete/mortar

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#### ADVANTAGES:

1. Allowed continuous placing of concrete at low temperatures
2. Gives additional frost protection
3. Enables earlier release from precast moulds thus speeding production
4. Reduces the water content of concrete or mortar without loss of workability
5. Reduces segregation and increases density and compressive strength.

#### DESCRIPTION:

Suitable for precast concrete and other high early strength requirements particularly suitable for addition and redosing if necessary at point of placing to provide short term workability enhancement.

**PACKAGING:** 50kg, 250 kg

 **1800 - 419 - 3637**



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### Description :

- **CX FAST SET M+** is supplied as a light yellow to white liquid. When added to Cementitious mixes it accelerates hydration and enables the water content to perform more efficiently by dispersing agglomerated cement particles.
- This further improves strength by enabling water reduction to be made at constant workability. Where there is embedded or prestressed steel or where sulphate resistant cement is used or when steam curing is employed, **CX FAST SET M+** should be replaced by **CX FAST SET AN** chloride free accelerating concrete admixture.

### Uses:

- As an accelerator for use in concrete and cement mortar to give rapid strength development for early stripping of formwork and to help resist the effects of frost. Ideal for winter working

### Advantages:

- Allows continued placing of concrete at low temperatures.
- Gives additional frost protection by reducing the low water content and accelerating hydration of cement
- Enables earlier release from precast moulds thus speeding production
- Reduces the water content of concrete or mortar without loss of workability
- Reduces segregation and increases density and compressive strength
- Accelerates the hardening of floors and screeds.

### Standard compliance:

- **CX FAST SET M+** complies with BS 5075 Part 1 and ASTM C494, Type C.

### Properties :

- **Specific gravity** : 1.30 - 1.31 at 30<sup>0</sup>C
- **Chloride content** : At the maximum recommended rate of addition, 3.4 liters/100 kg of cement, the Chloride ion concentration is 0.9% by weight of cement. In unreinforced concrete containing no embedded metal, **CX FAST SET M+**, at the recommended dosage rates may be used.
- **Air entrainment** : General less than 1% additional air.
- **Compatibility with other admixtures** : **CX FASTSET M+** is compatible with other CHEMAX admixture but should be added separately to the mix. Reduced air content may result when **CX FAST SET M+** is used in conjunction with some air entraining agents. Consult CHEMAX if other admixtures are to be used.

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- **Compatibility with other cements :** CX FAST SET M+ is compatible with ordinary and rapid hardening Portland cement but not high alumina or sulphate resisting cements.
- **Workability :** The addition of CX FASTSET M+ without reduction of the water content increases the slump and significantly improves concrete flow characteristics without decrease in concrete strength.
- **Setting times :** Typical results using CX FAST SET M+ are given in Table 1.

Table 1:

MIX	W/C RATIO	SETTING TIME @ 20°C	
		INITIAL SET	FINAL SET
CONTROL	0.59	4 HR 45 MINS	6 HR 30 MINS
CX FASTSET M+	0.55	1 HR. 30 MINS	3 HRS.

**Mix details:**

OPC	300 kg
Sand zone M	35%
10mm gravel aggregate	15%
20mm gravel aggregate	50%
CBQUICKSET AC	3.4 liters/100 kg cement

**Compressive strengths:**

- Typical performance with CX FAST SET M+ is given in Table 2

Table 2:

Temp.	Admixture	Dosage/liter 100 kg OPC	W/C Ratio	Compressive strength N/mm <sup>2</sup>			
				1 d	3 d	7 d	28 d
20°C	NONE	--	0.59	10.0	-	34.7	42.0
	FASTSET AC	3.4	0.55	22.2	-	49.7	57.6
19°C	NONE	--	0.65	5.6	15.2	28.1	38.6
	FASTSET AC	1.7	0.60	7.9	19.2	32.9	41.6
50°C	NONE	--	0.65	--	5.4	16.7	30.9
	FASTSET AC	1.7	0.60	--	8.0	21.0	35.9
20°C	NONE	--	0.65	--	3.6	12.8	26.1
	FASTSET AC	2.6	0.60	--	7.2	19.3	32.0

- Mix details as for Table 1, slump 50mm.

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**Application instructions :****Dosage**

Additional rate per 100 kg cement

- |   |  |
|---|--|
| • Above 4 <sup>0</sup> C                      |  |
| Concrete & mortar                             | 1.0 liter  |
| Granolithic floor toppings                    | 1.7 liter  |
| Blocks  | 1.7 - 3.4 liter, Depending on conditions   |
| • From 4 <sup>0</sup> C to - 2 <sup>0</sup> C | 2.6 liter  |
| • Below - 2 <sup>0</sup> C                    | 3.4 liter, at which rate concrete or mortar will be protected to -5 <sup>0</sup> C |

**Overdosing:**

- Overdosing will give increased acceleration and workability. Entrained air may increase slightly.

**Dispensing:**

- The correct quantity of **CX FAST SET M+** should be measured by means of a recommended dispenser.
- Consult CHEMAX office or representative for advice regarding suitable equipment and its installation. The measured quantity of **CX FAST SET M+** should be added directly to the mixer, preferably at the same time as the mixing water.

**Curing:**

- Normal good curing practice should be adopted.

**Cleaning:**

- Spillages of **CX FAST SET M+** can be removed with water.

**Estimating****Packaging:**

- **CX FAST SET M+** is supplied in 20 & 250 Kg drums.

**Storage:**

- Minimum of 12 months shelf life provided the temperature range has not exceeded 2<sup>0</sup>C to 50<sup>0</sup>C.



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### **Precautions**

#### **Health and Safety:**

- Skin contact should be avoided as the material is slightly acidic.
- Any splashes should be washed well with water.
- If contact with eyes occurs irrigate immediately with water and medical advice sought.

#### **Fire:**

- **CX FAST SET M+** is water based and non - flammable.