



# Conplast® M1

## Melamine based superplasticising admixture

### Uses

To provide acceleration of strength gain at early ages and major increases in strength at all ages by significantly reducing water demand in a concrete mix. 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.

To provide improved durability by increasing ultimate strengths and reducing concrete permeability.

### Advantages

- Major increases in strength at early ages without increased cement contents are of particular benefit in precast concrete, allowing earlier stripping times.
- Makes possible major reductions in water cement ratio which allow the production of high strength concrete without excessive cement contents.
- Use in production of flowing concrete permits easier construction with quicker placing and compaction and reduced labour costs without increasing water contents.
- Limited workability time ensures rapid access to concrete for early finishing.
- Chloride free, safe for use in prestressed and reinforced concrete.

### Standards compliance

Conplast M1 complies with BS:5075 Part 3 and ASTM-C-494 as Type 'A' and 'F'.

### Description

Conplast M1 chloride free superplasticising admixture is based on sulphonated melamine polymers. It is supplied as a clear solution which instantly disperses in water.

Conplast M1 disperses the fine particles in the concrete mix, enabling the water content of the concrete to perform more effectively. The very high levels of water reduction possible allow major increases in strength to be obtained.

### Technical Support

Fosroc provides a technical advisory service for on-site assistance and advice on admixture selection, evaluation trials and dispensing equipment. Technical data and guidance can be provided for admixtures and other products for use with fresh and hardened concrete.

### Typical dosage

The optimum dosage of Conplast M1 to meet specific requirements should always be determined by trials using the materials and conditions that will be experienced in use. This allows a complete assessment of the concrete mix and the optimisation of admixture dosage and mix design.

A starting point for such trials is to use a dosage within the normal typical range of 0.5 to 2 litres/100 kg of cementitious material, including PFA, GGBFS and microsilica.

### Use at other dosages

Dosages outside the typical range quoted above may be used if necessary and suitable to meet particular mix requirements, provided that adequate supervision is available. Compliance with requirements must be assessed through trial mixes. Contact Fosroc for advice in these cases.

### Properties

<b>Appearance</b>	Clear liquid
<b>Specific gravity</b>	1.17
<b>Chloride content</b>	Nil. to BS:5075
<b>Air entrainment</b>	Typically less than 1% additional air is entrained at normal dosages.

### Instructions for use

#### Mix design

Where the primary intention is to improve strengths, initial trials should be made with normal concrete mix designs. The addition of the admixture will allow the removal of water from the mix whilst maintaining the workability at the levels obtained before the use of the admixture.

Where the primary intention is to provide high workability concrete, the starting mix design should be one suitable for use as a pump mix. Such mixes have higher fines contents for increased cohesion. Advice on mix design for flowing concrete is available from Fosroc.

After initial trials, minor modifications to the mix design may be made to optimise performance.

#### Compatibility

Conplast M1 is compatible with other Fosroc admixtures used in the same concrete mix. All admixtures should be added to the concrete separately and must not be mixed together prior to addition.

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Conplast M1 is suitable for use with II types of ordinary portland cements and cement replacement materials such as PFA, GGBFS and silica fume.

## Dispensing

The correct quantity of Conplast M1 should be measured using a recommended dispenser. Normally, the admixture should be added to the concrete with the mixing water to obtain the best results. Where high workability concrete is required from normal workability concrete delivered to site, Conplast M1 may be added to concrete in the drum of a ready-mix truck. Full blending of the admixture and the concrete should be ensured by mixing in the truck drum at high speed for at least two minutes.

Contact Fosroc for advice regarding suitable equipment and its installation.

## Effects of overdosing

An overdose of double the intended amount of Conplast M1 will greatly increase the plasticising effect. If no increase in water reduction is taken or a significant rise in workability is allowed there is a strong possibility of mix segregation, which may be accompanied by some retardation.

## Curing

As with all structural concrete, good curing practice should be maintained. Water spray, wet hessian or a Concure WB spray applied curing membrane should be used.

## Estimating

## Packing

Conplast M1 is available in drum or bulk supply.

## Storage

Conplast M1 has a minimum shelf life of 6 months provided the temperature is kept within the range of 2°C to 50°C. Should the temperature of the product fall outside this range then Fosroc should be contacted for advice.

**Freezing point :** Approximately 0°C.

## Precautions

## Health & Safety

Conplast M1 should not be swallowed or allowed to come into contact with skin and eyes.

Suitable protective gloves and goggles should be worn.

Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

For further information consult the Material Safety Data Sheet available for this product.

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## Important note :

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