

High Range Water-Reducing Concrete Admixture

## DESCRIPTION



TamCem 11 is a new generation superplasticiser for concrete. It contains sulphonated polymers and is specially formulated to give exceptionally high water reduction and greater workability. It is a non-chloride added liquid admixture which has been formulated to comply with the requirements of ASTM C 494 for Type A and Type F, high range water-reducing admixtures. It fully meets the requirements of BS5075 : Part 3 : 1985 for superplasticising admixtures and JIS A6204 "Chemical Admixtures for Concrete". It is compatible with all cements meeting recognised international standards.

TamCem 11 provides extreme workability characteristics for high slump and highly flowable concrete with greatly reduced water demand.

## KEY BENEFITS

- > High water reduction that ensures high early and ultimate strengths, low permeability and high durability of the concrete.
- > High flowability allows for easy placement.
- > Good cohesion, no segregation, minimal bleed water and extremely high levels of workability of the concrete.
- > Enhanced easier placement and delivery control.
- > High elastic modulus, low shrinkage and creep are achievable with graded coarse and fine aggregates.
- > Superior finishes with reduced honeycombing.

## TYPICAL APPLICATIONS

- > High performance concrete
- > Highly flowable concrete
- > Highly durable concrete
- > High early strength concrete
- > High strength concrete
- > Pre-cast concrete
- > Ready-mixed concrete
- > Pumped concrete
- > Less environmental impact concrete
- > Environmental design concrete structures

## TECHNICAL DATA

TamCem 11	
Form	Liquid
Colour	Brown
Density (g/cm <sup>3</sup> )	1.20 ± 0.02
Chloride ion content	< 0.01%
All at 25°C	

All technical data stated herein is based on tests carried out under laboratory conditions.

## APPLICATION GUIDELINES

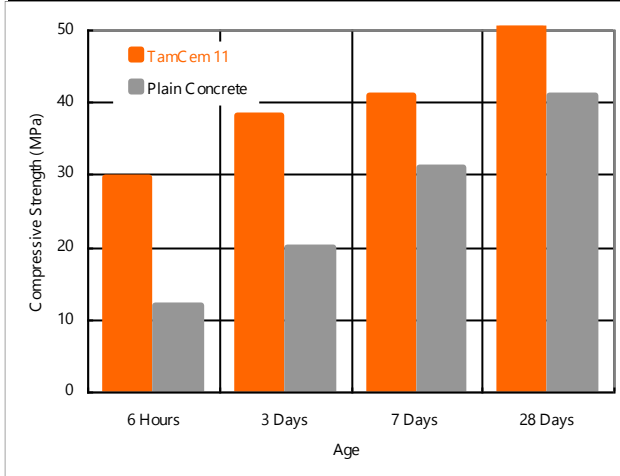
Dosage can be adjusted to meet mix design requirements or to meet specific job site conditions. Trial concrete mixes must be carried out to determine the appropriate dosage.

An independent dispenser and feed line must be used during the application. TamCem 11 can be added to the mixed concrete or into the mixing water but addition to any dry concrete mix is not recommended.

Typical dosage is 1000 ml / 100 kg of cementitious binder. Should application conditions require a higher dosage rate, consult your local Normet representative for confirmation.

## High Range Water-Reducing Concrete Admixture

Mix Proportion	Test Mix A	Plain Concrete
Cement	400 kg/m <sup>3</sup>	470 kg/m <sup>3</sup>
Coarse aggregate (Max. 20 mm)	1100 kg/m <sup>3</sup>	1015 kg/m <sup>3</sup>
Fine aggregate (River Sand)	683 kg/m <sup>3</sup>	625 kg/m <sup>3</sup>
Water	176 kg/m <sup>3</sup>	212 kg/m <sup>3</sup>
Water/Cement Ratio	0.450	0.451
Admixture	TamCem 11	None
Dosage by weight of binder	1.00%	0.00%
Steam curing cycle	6 hours	6 hours
Time pre-heated and cooled	3 hours	3 hours
Time steam cured at 60°C	3 hours	3 hours



TamCem 11 is compatible with most TamCem admixtures. Please consult your local Normet representative if required.

Do not use with other superplasticisers and/or water-reducers even if diluted with water or already in the mix.

### PACKAGING

TamCem 11 is supplied in IBCs, drums and bulk. Packaging size may vary subject to local regulations and requirements, please contact your local Normet representative for more details.

### STORAGE

TamCem 11 should be kept dry and out of direct sunlight, stored at room temperature above 0°C. If these conditions are maintained and the product packaging remains sealed, then a shelf life of 1 year can be expected.

TamCem 11 will freeze at approximately -4°C but will return to full functionality after thawing and thorough mild mechanical agitation.

### HEALTH & SAFETY

TamCem 11 should only be used as directed. We always recommend that the Safety data sheet (SDS) is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Safety data sheet is available upon request from your local Normet representative.

Whilst any information and/or specification contained herein is to the best of our knowledge, true and accurate, we always recommend that a trial be carried out to confirm suitability of the product. Please note regional climatic conditions may cause a variation in the performance of the product. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives, agents or distributors. The information in this data sheet is effective from the date shown and supersedes all previous data. Please check with your local Normet office to confirm that this is current issue.