

DESCRIPTION



TamCem HCA is a liquid additive for all fresh concrete and grout mixes where extended “open-time” becomes a crucial requirement for the construction process time frame. The product is designed to efficiently control cement hydration to allow for extended waiting times or delays on site, or readymix concrete transportation times. TamCem HCA eliminates the amount of rejected concrete due to loss of workability and helps contractors to stay within or even reduce the initially calculated material budget.

TamCem HCA is a high performance hydration control admixture for all wet sprayed concrete. It can be used in tunnelling applications where low rebound and high performance in combination with TamShot alkali-free accelerator is needed.

By adjusting the dosage, setting times of fresh concrete can be extended, giving an open-time typically in the range of 4 to 8 hours, but can be extended up to 2 days if required.

TamCem HCA meets EN 934-2 requirements for set retarding admixtures, EN 934-5 requirements for consistence control admixtures and ASTM C-494 requirements for Type B, retarding and Type D, water reducing and retarding admixtures.

KEY BENEFITS

- > Controlled extended life of concrete or grout mix allowing increased flexibility on site
- > Allows city centre job sites to stockpile fresh concrete and grout mixes during day shifts to negate need for night time batching
- > Significantly reduces disposal of rejected / returned mixes
- > Enhances performance of sprayed concrete set accelerators
- > Beneficial in high temperatures and high humidity application environments

TYPICAL APPLICATIONS

TamCem HCA reacts with all commonly used Portland cement types and can be used to control hydration of all cement based grouts or concrete types. Typically, TamCem HCA is used in the mining and underground construction industry for applications such as:

- > Sprayed concrete
- > TBM Backfill grouts
- > Pre-excavation grouting using TamCrete MFC grouts
- > All concrete and cement grout applications where extended mix life is required

TECHNICAL DATA

TamCem HCA	
Colour and Form	Clear green liquid
Density (ISO 758) kg/dm ³	1.08 ± 0.02
pH value (ISO 4616)	1.0 ± 0.5
Na ₂ O-equivalent (EN 480-12), %	< 0.1
Chloride content (EN 480-10), %	< 0.1
All at 20°C	

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

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.

Liquid Admixture for Controlled Concrete Hydration

APPLICATION GUIDELINES

Refer to our Technical Department for detailed information on the application of TamCem HCA.

TamCem HCA should be added directly at the batching plant or truck-mixer at a suggested dosage of 0.3% to 2% of the cement weight in the concrete mix. TamCem HCA should always be added at the end of the batching process after all the concrete is thoroughly wetted out.

In all cases, it is recommended to carry out prior testing involving all components such as cement, fly ash, micro silica, sand, aggregates, in order to optimise the dosage required to maintain mix workability with TamCem superplasticising admixtures.

All testing should be in accordance with EN, ASTM, DIN or EFNARC standards to evaluate the best performing mix-design against economical considerations. Please always involve your local Normet representative for support.

PACKAGING

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

STORAGE

TamCem HCA should be stored at room temperature (min 0°C and max 38°C), kept in closed containment in a cool, ventilated place out of direct sunlight until used. If these conditions are maintained and the product packaging remains sealed, then a shelf life of one year can be expected.

Due to the products acidic pH, TamCem HCA must be stored in stainless steel or plastic containers. Storage tanks made of mild (carbon) steel must not be used. Furthermore, all admixture pumps and delivery lines should be made of similar, anti-corrosive materials.

TamCem HCA will freeze at approximately -2°C but will return to full functionality after thawing and thorough mild mechanical agitation.

HEALTH & SAFETY

TamCem HCA 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.