

STERLING TechnoCrete® CW 103

Non-Chloride Accelerating & Water Reducing Admixture For Cold Weather Concreting

Description:

TechnoCrete® CW 103 is a ready-to-use, liquid accelerating and water reducing admixture for producing concrete in cold weather. TechnoCrete® CW103 improves properties of plastic and hardened concrete, provides a significant improvement in early stiffening and setting characteristics in general and especially under cold weather, improved workability and decreased bleeding and segregation. TechnoCrete® CW103 is compatible with air-entraining admixtures and other Techno Builders Solutions® range of super plasticizers, and water reducing admixtures. TechnoCrete® CW 103 does not contain any added chloride ions ensuring that the product does not contribute to the corrosion of reinforcing steel.

Usage:

- Cold weather concreting
- Structural and plain concrete
- Precast and post tensioned concrete
- Concrete bridge decks and Prestressed concrete repair
- Prestressed concrete and concrete over metal decking and roof systems
- Concrete block and mortar

Features & Benefits:

- Reduces initial set 1 to 4 hours depending on concrete temperatures
- Improves workability and provides denser concrete
- Minimizes bleeding and segregation
- Improves compressive strength development at early ages
- Improves cohesiveness and plasticity which aids in avoiding honeycombing
- Allows earlier finishing

Packaging:

TechnoCrete® CW 103 is supplied in 225 Kg plastic container.

Shelf Life & Storage:

Shelf life is 18 months from production date if stored in original, unopened packaging, at temperatures between -10°C and +35°C. If it is stored at very low temperatures, crystals of the active ingredient may be formed at the bottom of the container. Before use, the admixture must re-obtain a positive temperature and be slightly stirred, until it is homogenized. TechnoCrete® CW 103 is water based and is nonflammable.

Directions for use:

TechnoCrete® CW 103, is added to the gauging water as per the specified dosage % by weight of cement at the plant or added on the site into the concrete mixer. For getting homogenous distribution in concrete or mortar, it must be stirred fast during 1-2 minutes. When added separately to the freshly mixed concrete, further mixing should take place for at least 3 minutes. Before being discharged, the concrete must be visually inspected for even consistency.

Dosage:

TechnoCrete® CW 103 is typically used at dosages of 650 to 5870 mL per 100 kg of cementitious material. Higher dosages are acceptable with prior testing and confirmation of the desired performance with specific materials being used. TechnoCrete® CW 103 should be added to the initial batch water of the concrete mixture. Do not dispense onto dry cement. For ambient temperatures below 10°C follow ACI 306 Cold Weather Requirements. If conditions exist that require freeze resistant concrete systems using Techno Builders Solutions® range of admixtures, contact STIPL's sales representative for proper recommendations.

Compatibility:

TechnoCrete® CW 103 is compatible with all types of Portland cement & cement replacement materials, class C and F, fly ash, silica fume, fibers. TechnoCrete® CW 103 should not be used in conjunction on with other admixtures unless STIPL's Technical Department approval is obtained.

Technical Properties:

Chemical Base	Free Flowing Liquid
Appearance	Light brown or Pale Yellow liquid
Density	1.26 ± 0.02 at 20°C
pH Value	5-6 at 20°C
Freezing Point	-15°C
Chloride content	chloride-free

Standards:

TechnoCrete® CW 103 complies with the requirements of Specification for Chemical Admixture for Concrete ASTM C 494 as a Type C.

Performance:

In concrete mixtures, TechnoCrete® CW 103 accelerates the chemical reaction between Portland cement and water. It speeds up the formation of gel-the binder that bonds concrete aggregates together. Accelerated gel formation, shortens the setting time of concrete, compensates for the set-slowng effects of cold weather and contributes to the development of higher strength. Gel formation promotes heat generation within the mixture, helping to protect the concrete from freezing during the critical first hour after placement. In common with most concrete accelerators, the inclusion of TechnoCrete® CW 103 may reduce the ultimate compressive strength of concrete. The extent of strength loss should be established by conducting concrete trial mixes.

Cleaning:

TechnoCrete® CW 103 spillage should be collected by a suitable absorbent such as sand or vermiculite and transferred by a suitable container. TechnoCrete® CW 103 should not be allowed to enter sewers or open bodies of water. Dispose in accordance with local environmental regulations.

Health and Safety instructions:

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet.

Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd - The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

Disclaimer: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

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