CHEMCORE™
by FAIR MATE®

COREFLOW 140

Formerly known as **FAIRFLO 140**

High performance super plasticizer cum slump retainer

BENEFITS

- Increases concrete density, enhancing durability
- Improves workability, offering high early and 28-day strength when the advantage of water reduction is utilized
- Enhances efficiency and reduces segregation, providing a better finish
- Significantly improves compressive strength through water reduction
- Reduces the risk of shrinkage
- Ideal for mass concreting and pavement concrete projects
- Maintains concrete setting performance in winter season
- Non-flammable

DESCRIPTION

COREFLOW 14O is a high-range water-reducing cum slump retaining admixture for concrete, conforming to ASTM C-494 types 'E & G' and IS 9103-1999. This special polymer-based solution, supplied as a brown liquid, instantly disperses in water. The admixture serves as a powerful dispersing agent, crucial for producing dense, high-strength, durable concrete (M-30, M-35, M-40, M-45, M-50, M-60). Its high water reduction capability makes it ideal for precast concrete applications, where high early strength is essential, improving workability without the risk of segregation and bleeding.

- **INCREASES WORKABILITY: COREFLOW 14O** enhances the workability of concrete mixtures without additional water, leading to easier placement and finishing while reducing the risk of segregation and bleeding. It also retains the slump for an extended period, facilitating smoother placement.
- **INCREASES STRENGTH : COREFLOW 14O** allows for up to 30% water reduction in the concrete mix, achieving increased early and ultimate (28 days) strength, enhancing productivity in precast concrete and enabling the production of high-strength concrete without increased cement content.

USES

COREFLOW 140 can be used in:

- Ready mix concrete
- Concrete to be pumped
- Self-compacting concrete
- Precast concrete

PHYSICAL PROPERTIES

Appearance	Yellowish-brown liquid
pH	Minimum 6.0
Chloride content	Less than 0.2% as per IS 9103:1999

DIRECTION TO USE

COREFLOW 14O is a ready-to-use liquid, it should be dispensed into the concrete along with mix design water. Its plasticizing effect and water reduction are maximized when added to the damp concrete after 50 to 70% of the mix design water has been incorporated.

DOSAGE

The optimum dosage of **COREFLOW 14O** should be determined through trial mixes, generally ranging from 0.6% to 1.5% by weight of cementitious material. Adjustments may be necessary based on concrete materials and job site conditions.

EFFECTS OF OVER DOSAGE

Severe over-dosage of **COREFLOW 14O** can lead to an extended setting time, increased air entrainment, mix segregation or bleeding, and increased plastic shrinkage causing cracks.

COMPATIBILITY

COREFLOW 14O is compatible with most admixtures used in quality concrete production, including various water-reducing admixtures, air entrainers, accelerators, retarders, set-control admixtures, corrosion inhibitors, and shrinkage reducers. It is also compatible with slag and pozzolans such as fly ash, metakaolin, and silica fume.

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WORKABILITY

COREFLOW 140 maintains the workability of rheoplastic concrete for over 2 hours at a temperature of approximately +25°C. The extent of workability is influenced by several factors, including the ambient temperature, the type of cement used, the characteristics of the aggregates, the method of transport, and the initial workability level of the concrete. To ensure optimal performance and quality of the concrete, especially in hot, windy, and dry climates, proper curing practices are strongly recommended.

WORKING MECHANISM

COREFLOW 140, representing the third generation of superplasticizers, differs chemically from traditional PCE polymer-based admixtures. Unlike earlier polymers that quickly coat cement granules to disperse them through electrostatic repulsion, **COREFLOW 140**'s unique PCE structure allows for delayed absorption on cement particles, enhancing their dispersion more efficiently. This results in the ability to produce high-quality concrete with accelerated strength development and maintained workability, without affecting the setting time. Specifically designed for ready-mix concrete, **COREFLOW 140** enables the creation of high-performance concrete with excellent workability.

PACKING

COREFLOW 140 is supplied in 50 kg and 225 kg drum.

SHELF LIFE & STORAGE

COREFLOW 140 has a shelf life of **12 months** in unopened containers, stored in dry conditions at temperatures between 5°C and 35°C. Keep the material under shaded areas and away from direct sunlight.

HEALTH & SAFETY

COREFLOW 140 is a non-toxic, mildly alkaline liquid. Any splashes on the skin should be washed off with clean water. In case of contact with the eyes, rinse with clean water and seek medical advice.

QUALITY ASSURANCE

Fairmate manufactures entire range of construction chemicals under compliance of ISO 9001, ISO 14001 & ISO 45001 (Occupational Health and Safety) certified by ISOQAR / UK.

TECHNICAL SERVICES

While new advances and changes will take place but one thing will never change is quality and meeting special needs of our customers. Our quality control laboratory and technical experts are available to provide additional information and technical assistance. We are eager to work with you in development of new product and resolve your problem.

OUR RANGE OF PRODUCTS

CONCRETE ADMIXTURES WATERPROOFING SYSTEMS ENGINEERING GROUTS INDUSTRIAL FLOOR SURFACES	CONCRETE REPAIRS SURFACE TREATMENT SEALANT PREPACKED CONCRETE & MORTAR	PROTECTIVE COATING HIGHWAY REPAIR ARCHITECTURAL FINISH

"Contact us to discuss any potential requirement and you will be assured of a rapid and effective response - that's guarantee!!"

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