



FAIRFLOTM 140

HIGH PERFORMANCE SUPER PLASTICIZER CUM SLUMP RETAINER

BENEFITS

- Makes concrete denser hence durability increases.
- Increase workability- high early and 28 days strength, if advantage of water reduction is taken.
- Improves workability & high efficiency.
- Minimizes segregation and gives better finish.
- Water reducing significantly improves compressive strength
- Decrease the risk of shrinkage
- Ideal for mass concreting & pavement concrete
- No effect on concrete setting in winter season.
- Non flammable.

PRODUCT

FAIRFLO 140 is high range water reducing cum slump retainer admixture for concrete conforming to **ASTM C-494 type 'G' & IS 9103-1999**.

FAIRFLO 140 is a Special polymer based solution supplied as a brown color which instantly disperses in water. The powerful dispersing agent of the high range water reducing super plasticizer can be used in many ways to obtain dense, high strength durable concrete (m-30, m-35, m-40, m-45, m-50 m-60). The high water reduction properties makes an ideal application in precast concrete, where high early strength is paramount importance when incorporate in concrete increases the workability without risk of segregation & bleeding. **FAIRFLO 140** also retains the slump for much longer time which facilitate easy placement

INCREASES WORKABILITY

FAIRFLO 140 when incorporated in concrete mix increases the workability without additional water, thus leading to easy placement and finishing without the risk of segregation and bleeding also it retains the slump for longer time which facilitates easy placement.

INCREASES STRENGTH

FAIRFLO 140 can be used to reduce up to 30% water for a given workability leading to increased early and ultimate (28 days) strength. Such high early strength and early stripping of forms lead to increased productivity on precast concrete and the production of high strength concrete without increasing cement content.

USES

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

DIRECTION TO USE

FAIRFLO 140 is a ready-to-use liquid which is dispensed into the concrete together with the mixing water. The plasticising effect

and water reduction are higher if the admixture is added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of **FAIRFLO 140** to dry aggregate or cement is not recommended

DOSAGE

Optimum dosage of **FAIRFLO 140** should be determined with trial mixes. As a guide, 0.6% to 1.5% by weight of cementitious material is recommended as a starting point. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required.

Thorough mixing is essential and a minimum mixing cycle, after the addition of the **FAIRFLO 140**, of at least 180 seconds for forced action mixers is recommended.

EFFECTS OF OVER DOSAGE

A severe over-dosage of **FAIRFLO 140** can result in the following :

- Longer extension of initial and final set
- Increase in air entrainment
- Bleed/segregation of mix, loss of workability
- Increased plastic shrinkage

TYPICAL PROPERTIES

- Appearance : Yellowish Brown Liquid
- pH: = Minimum 6.0
- Chloride content: <0.2 % as per 9103:1999

TYPICAL TEST PROPERTIES

Trial results with standard mix designs at different grade from M20 to M45. Brand and grade of cement: Siddhi OPC-53; Sand zone: zone IV.

SHELF LIFE AND STORAGE

FAIRFLO 140 will have a shelf life of **12 months** in unopened containers when kept in dry conditions at a temperature between 5°C to 35°C. Material must be kept under shaded area and away from direct sunlight. Storage at higher temperature or high humidity may reduce shelf life.

COMPATIBILITY

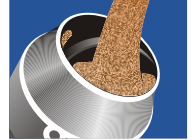
FAIRFLO 140 is compatible with most admixtures used in the production of quality concrete including normal, other mid-range and high-range water-reducing admixtures, air entrainers, accelerators, retarders, extended set-control admixtures, corrosion inhibitors, and shrinkage reducers

FAIRFLO 140 is also compatible with slag and pozzolans such as fly ash, metakaolin and silica fume.

WORKABILITY

FAIRFLO 140 ensures that rheoplastic concrete remains workable in excess of 2 hours at +25°C. Workability is dependent on temperature, and on the type of cement, the nature of aggregates, the method of transport and initial workability. It is strongly recommended that concrete should be properly cured particularly in hot, windy and dry climates.

FAIRFLO 140TM



MECHANISM OF WORKING

While traditional admixtures consists of polymers which are absorbed by the cement granules; which wrap around the granules' surface areas at the very early stage of the concrete mixing process. The sulphonic groups of the polymer chains increase the negative charge of the cement particle surface and disperse these particles by electrical repulsion. This electrostatic mechanism causes the cement paste to disperse and has the positive consequence of requiring less mixing water to obtain a given concrete workability.

FAIRFLO 140 has a different chemical structure from the traditional superplasticisers based on PCE polymers (second generation PCE polymers). The third generation **FAIRFLO 140** is specially engineered for ready-mix concrete. The particular configuration of PCE polymer, allow its delayed and sustained absorption on to the cement particles and disperse them efficiently. As compared with other PCE superplasticisers, it is possible to obtain a high quality concrete mix with accelerated strength development and extended workability without delayed setting characteristics. It allows the production of high performance concrete and/or concrete with high workability.

PACKAGING

FAIRFLO 140 is supplied in drums and in bulk quantity on request.

HEALTH & SAFETY

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, and skin. 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.

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 SERVICE

Mix design : Fairmate has a dedicated advisory service on Concrete mix design and can be contacted if assistance is required.

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 PREPACKED CONCRETE MORTAR PROTECTIVE COATING	HIGHWAY REPAIR ARCHITECTURAL FINISH
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"Contact us to discuss any potential requirement and you will be assured of a rapid and effective response - that's guarantee !!"

Complete range of construction chemical products - Foundation to Finish



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