## CONFLOW

WATER REDUCING AGENT FOR CEMENT

### **INTRODUCTION**

Conflow is a specially formulated admixture designed to reduce the water/cement ratio of concrete. The addition of Conflow to cement disperses the agglomerated cement particles into smaller particles and as such, it works as a dispersing agent; thus improving its workability.

### WHY TO USE?

Though 16 liters of water per 50 kg. bag of cement is needed for complete hydration of cement, more water is added for placeability of concrete. This excess water will bleed to the surface or evaporate, leaving voids that decrease the strength and increase permeability. To avoid these problems, the excess water used for placeability must be kept at minimum.

Conflow helps in controlling water/cement ratio than is possible with a plain concrete mix. When it is added to a given concrete mix, it increases the slump, leading to easier placeability without the loss in strength that would normally result if the slump was increased by using more water. On the other hand Conflow can be used to maintain a given slump at reduced water/cement ratio thus giving a concrete that is stronger and more waterproof. The increased strength can be used to effect a saving in cement if so required. The lower cement consumption reduces the heat generation which is useful in mass concrete work.

### WHERE USED?

Conflow is used in all kinds of concreting work, i.e. in ready mixed, prestressed, precast, cast in situ, light weight or expansion concrete. It is particularly useful when concrete pours are restricted due to either congested reinforcement or thin section & even when harsh mixes prepared with crushed aggregates are used e.g. in casting sloping roof slab, Conflow improves the plastic properties of the concrete. When it is used as water-reducing agent, the early and final strength of concrete is increased & the concrete of low permeability and greater durability to withstand the aggresive chemicals is produced. Therefore, it could be used in the construction of sewage and effluent treatment plants, harbour project etc.

# COME TO CONTECH AND YOU HAVE COME ALL THE WAY TO UNPARALLELED PROTECTION

### **ADVANTAGES**

- 1. Water requirement reduced by 15% to 20%
- 2. Reduced bleeding.
- 3. Increased workability.
- 4. More cohesive concrete.
- 5. No plastic shrinkage.
- 6. Greater durability.
- 7. Denser concrete without any honey-combing.
- 8. Increased water tightness.
- 9. Improved concrete finishing.
- 10. Higher strength achieved.( by more than 25%)
- 11. Reduced corrosion of reinforcement in concrete.
- 12. Increased steel-concrete bond strength.
- 13. Minimised segeration and hence harder wearing surface of concrete surface.
- 14. Higher chemical resistant of concrete surfaces.
- 15. Chloride Free.

### TYPICAL TEST RESULT

Sr. No.	Type of Test using M : 150 Mix	Water Content	Compressive Strength Kg/cm <sup>2</sup> Days				Flexural Strength Kg/cm <sup>2</sup> Days		
			3	7	28	90	3	7	28
1.	Concrete without Conflow	100%	97	135	. 193	284	24.6	42.2	61.8
2	Concrete with Conflow	88%	123	180	253	355	33.6	52.0	72.0

### **DIRECTION FOR USE**

Use 200 ml. of Conflow per 50 kg. bag of cement. This should be added as mentioned below keeping water/cement ratio as low as possible.

Add half the usual gauging water in the mixing drum, add full quantity of Conflow in it and start the mixer. Add dry cement, sand and/or other aggregates in the above and add additional guaging water very slowly to have desired consistency of concrete.

Conflow is non-inflammable, non-toxic and non-injurious to skin.

Conflow is available in 20 and 200 Litre Packing.