

# CIKOflow SPH M3

Smart Chemical Solutions



## High range water reducing and retarding super plasticizer

### Description

CIKOflow SPH M3 is a high range water reducing and retarding concrete admixture suitable the production of high strength concrete with low water-cement ratio. It exhibits good workability retention especially at high ambient temperatures.

CIKOflow SPH M3 consists of a blend of selected synthetic organic polymers in water along with other ingredients. It increases the dispersion of cement particles and enables the water content in the concrete to perform with maximum efficiency.

### Properties

- Provides high range water reducing property with excellent workability
- Suitable for high strength and high cement content concrete
- Eliminates segregation and bleeding problems and improves surface finish
- Reduction in heat of hydration in mass concrete
- Reduction in permeability, yielding durability

### Application area

CIKOflow SPH M3 is suitable for all kinds of high strength and high cement content concrete. Typical application includes

- Piling and mass concrete pours
- High strength ready-mix concrete for long distance pours.
- Suitable for hot weather concreting

### Applicable standards

- CIKOflow SPH M3 complies with ASTM C-494 type B,D & G and BS EN 934-2.
- Comply with Qatar Construction Specification QCS.

### Physical Properties

Form	Liquid
Colour	Dark brown
Specific Gravity	1.25±0.015 at 25 °C
Chloride Content	Nil to BS 5075
Compatibility	Compatible with other CIKO admixtures and all types of cement
Air content	Less than 2%

### Dosage

The normal dosage is 0.5 to 2.0 litres per 100kg cement which includes replacements (if any) such as microsilica, GGBFS, and fly ash. In case if the required dosage rate is more than 2.0 litres per 100kg cement, consult CIKO technical service department to customize the solution.

The optimum dosage should be determined by conducting laboratory/site trials considering proposed mix design, ambient conditions and performance requirements.

### Usage instructions

CIKOflow SPH M3 is a ready to use concrete admixture. Required/calculated amount of CIKOflow SPH M3 should be measured by means of measuring jar or dispenser, and should be added to concrete during mixing process preferably at the same time along with water.

To attain optimum efficiency of the admixture, it is always recommended to dose CIKOflow SPH M3 to wet concrete mix. This can be done by mixing 70-75% of the total required water with all other ingredients of concrete followed by the addition of CIKOflow SPH M3 diluted with remaining 25-30% water.

NOTE: CIKOflow SPH M3 should not be mixed with dry/lump concrete.

### **Compatibility with other admixtures**

CIKOflow SPH M3 is compatible with other CIKO range of admixtures provided each admixture is dispensed separately into the concrete. Site trials should be conducted to obtain optimum dosage. Contact CIKO technical service department for any further information.

### **Packaging**

CIKOflow SPH M3 is available in 200 litre drums and in 1000 IBC tank.

### **Shelf Life**

CIKOflow SPH M3 has a minimum shelf life of 12 months if stored in accordance with CIKO instructions.

### **Storage**

CIKOflow SPH M3 should be stored under enclosed shaded area.

### **Precautions**

- Dosage shall not be more than the maximum limit

#### *Effect of over dosage:*

Over dosage to the extent of double the recommended dosage of CIKOflow SPH M3 will result in increased retardation and workability. The retardation effect will be more in case if sulphate resistant cement and cement replacement materials are incorporated in the mix. Increase in retardation will not affect the ultimate strength of concrete if it is cured as per the standard curing practices in accordance with relevant standards.

### **Health & Safety**

CIKOflow SPH M3 should not come in contact with eyes or to be swallowed. If comes in contact with eyes, flush with plenty of fresh water and seek medical advice.

CIKOflow SPH M3 is water based material and non-flammable.

Refer Material Safety Data Sheet for further details.

### **Technical Support**

*For any technical support, do not hesitate to contact CIKO team at any time as CIKO offers on and off site services to end users, specifier and contractors.*

### **More from CIKO Middle East**

A wide range of construction chemical products are manufactured by CIKO Middle East which includes:

- Concrete admixtures and additives
- Waterproofing and damp proof coatings
- Surface treatments
- Flooring and toppings
- Grouts and anchors
- Tile adhesives and grout
- Concrete repair materials
- Adhesives and bonding agent
- Protective coating
- Joint Sealants and Moulding compounds
- Ancillaries

TDS/AD18 Rev.:2 Issue:C

Note: The information presented herein based on the best of our knowledge and expertise for which every effort is made to ensure its reliability. Although all the products are subjected to rigid quality tests and are guaranteed against defective materials and manufacture, no specific guarantee can be extended because results depend not only on quality but also on other factors beyond our control

