

# CIKOflow HY140

## New generation high range concrete super plasticizer

### Description

CIKOflow HY140 is a high range water reducing super plasticizer based on modified polycarboxylic ether. It increases the dispersion of cement particles by electrostatic repulsion and steric hindrance that enables the water content in the concrete to perform to maximum efficiency accounting to lesser water-cement ratio with improved workability.

CIKOflow HY140 is highly suitable for low water-cement concrete mixes maintaining higher workability to produce high strength concrete. It exhibits prolonged workability retention especially in high ambient temperatures.

### Properties

- Better dispersion of cement particles with small adsorbed area.
- Exhibits combined properties of high water reduction and prolonged workability retention.
- Maintains concrete flowability over a long time.
- Provides high early compressive and flexural strengths.
- Low water cement ratio yields to low permeability.
- Reduction in permeability, yielding to increased durability.

### Application area

CIKOflow HY140 is suitable for all kinds of high strength, high cement content and low water cement ratio concrete. Typical application includes

- Self compacting concrete
- Hot weather concreting that demands prolonged workability retention
- More suitable for congested reinforcement
- To avoid cold joints
- To obtain low heat of hydration

### Applicable standards

- CIKOflow HY140 complies with ASTM C-494 type A, and F.
- Comply with Qatar Construction Specification QCS.

### Physical properties

Form	Liquid
Colour	Light yellow
Specific Gravity	1.06 ± 0.015 at 25 °C
Chloride Content	Nil to BS 5075
Compatibility	Compatible with all types of cement

### Dosage

The normal dosage is 0.5 to 2.0 litres per 100kg cement which includes replacements (if any) such as microsilica, GGBFS, calcined clay (metakolin) and fly ash.

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

### Usage instructions

CIKOflow HY140 is a ready to use concrete admixture. Required/calculated amount of CIKOflow HY140 should be measured by means of measuring jar or dispenser and should be added to concrete during mixing process preferably after dispensing 70% of total water.

To attain optimum efficiency of the admixture, it is always recommended to dose CIKOflow HY140 to wet concrete mix. This can be done by mixing 70-75% of the total water with all other ingredients of concrete followed by the addition of CIKOflow-HY140 diluted with remaining 25-30% water.

NOTE: CIKOflow HY140 should not be mixed with dry/lump concrete.

### Compatibility with other admixtures

CIKOflow HY140 should not be used in conjunction with any other admixtures. In case of such requirements please consult CIKO technical service department for assistance.

## Packaging

CIKOflow HY140 is available in 200 litre drums and in 1000 litre tank.

## Shelf Life

CIKOflow HY140 has a minimum shelf life of 12 months if stored in accordance with CIKO instructions.

## Storage

CIKOflow HY140 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 HY140 will result in delayed setting time and increased workability.

## Health & Safety

CIKOflow HY140 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 HY140 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.*

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- Surface treatments
- Flooring and toppings
- Grouts and anchors
- Tile adhesives and grout
- Concrete repair materials
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- Protective coating
- Joint Sealants and Moulding compounds
- Ancillaries