# CIKOflow SP145



# **High Range Water Reducing Superplasticizer**

## **Description**

CIKOflow SP 145 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 SP 145 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 SP 145 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 SP 145 complies with ASTM C-494 type A, F, and G and BS EN 934-2.
- Comply with Qatar Construction Specification QCS.

## Physical properties

Form	Liquid
Colour	Dark Brown
Specific Gravity	1.26 ± 0.02 g/cm <sup>3</sup>
Water Soluble Chloride content BS EN 480-10	≤0.01%
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 micro silica, 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 SP 145 is a ready to use concrete admixture. Required/calculated amount of CIKOflow SP 145 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 SP 145 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 SP 145 diluted with remaining 25-30% water.

NOTE: CIKOflow SP 145 should not be mixed with dry/lump concrete.



#### Compatibility with other admixtures

CIKOflow SP 145 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 SP 145 is available in 200 litre drums and in 1000 IBC tank.

#### Shelf Life

CIKOflow SP 145 has a minimum shelf life of 12 months if stored in accordance with CIKO instructions.

#### **Storage**

CIKOflow SP145 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 SP 145 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 SP 145 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 SP 145 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

#### **Legal Notice and Warranty**

CIKO warrants this product to be free from manufacturing defects and to meet the technical properties stated in the current Technical Data Sheet, if used as directed within its shelf life. Satisfactory results depend not only on quality of product but also on many factors beyond our control. CIKO makes no other warranty or guarantee, express or implied, including warranties of merchantability or fitness for a particular purpose with respect to its product. The sole and exclusive remedy of purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of CIKO. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by purchaser. CIKO will not be responsible for any special incidental, consequential including lost profits or punitive damages of any kind. Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on CIKO's present knowledge and experience. However, CIKO assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. CIKO reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

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All CIKO products are manufactured under a strict management system conforming to and in compliance with requirements of international standards of Quality, Environmental, occupational Health and Safety ISO 9001, ISO14001 and ISO45001.









