

# K2 REDUPLAST WPA

WATER REDUCING CONCRETE ADMIXTURE



Improves the effectiveness of the water content of a concrete mix. At Higher dosages it provides effective means of reducing concrete permeability and thereby reducing water penetration.

## BENEFITS

- Attains specified strength grades at reduced cement content or increased workability.
- Water reduction significantly improves compressive strengths at all ages and enhances durability through the production of low permeability concrete.
- Minimises the segregation and bleeding and facilitates production of a dense, close textured surface, improving durability.
- Chloride free, safer for use in prestressed and reinforced concrete.

## STANDARDS

K2 Reduplast WPA conforms to IS:9103-1999 and with IS : 2645 : 2003 as an integral waterproofing compound and ASTM C494 Type A as a normal water reducing admixture.

## DESCRIPTION

K2 Reduplast WPA is chloride free water reducing admixture based on sugar-reduced lignosulphonates. It is a brown solution which instantly disperses in water.

K2 Reduplast WPA disperses the fine particles in the concrete mix, enabling the water content of the concrete to perform effectively and improve the consistency of the concrete. This enables higher levels of workability for the same water content, facilitating water reduction and increased strengths.

### Ideal dosage

The ideal dosage of K2 Reduplast WPA for specific requirements should always be determined by trials using the materials and conditions that will be experienced in use allowing optimal admixture dosage and mix design and provides a complete assessment of the concrete mix. A referral trial dosage is within the normal typical range of 0.20 to 0.50 litres / 100kg of cementitious material, including PFA, GGBFS and microsilica.

## OTHER DOSAGES

Dosages outside the ideal ranges suggested above may be used if suitable to meet particular mix designs, subject to adequate supervision. Dosage suitability must be assessed through trial mixes.

## PROPERTIES

**Appearance :** Brown liquid

**Specific gravity :** 1.150 - 1.170 @ 25°C

**Chloride content :** Nil to IS:456

**Air entrainment :** Typically less than 1.5%. Additional air is entrained at normal dosages.

**Alkali content :** Typically less than 5.0g Na<sub>2</sub>O equivalent / liter of admixture.

## APPLICATION

### Compatibility

K2 Reduplast WPA is suitable for use with all types of ordinary Portland cements and cement replacement materials such as PFA, GGBFS and micro silica.

### Waterproofing

K2 Reduplast can be used to waterproof a concrete with the benefits of low permeability by significantly reducing the water-cement ratio.

### Dosaging

The exact quantity of K2 Reduplast WPA should be determined by means of lab trials. The admixture should then be added to the concrete with the mixing water to obtain the best results.

### Overdosing

An overdose of double the intended amount of K2 Reduplast WPA will increase retardation as compared to the normal at the intended dosage. This is common with most water reducing admixtures. Retardation is affected by factors other than the admixture depending on the mix details and conditions involved. Trials with a particular mix is necessary for better results, provided adequate curing is maintained. The final strength of the concrete will not be affected by increased retardation and will generally be increased. The effects of overdosing will be further increased if sulphate resisting cement or cement replacement materials are used.

Overdosage may also cause increased air entrainment, which will tend to reduce strength. The degree of this effect will depend on the particular mix design and overdose level. An overdose will tend to increase the plasticising effect of the admixture. As concrete is normally batched to a target workability, increased plasticising will result in increasing final strength and offsetting the effect of any increased air entrainment. If no increase in water reduction is taken and a significant rise in workability is allowed the chance of segregation may be higher. Increased initial workability will tend to extend the working life of the concrete, which will delay finishing and stiffening time to some extent.

### Curing

Good curing practice should be maintained, particularly where an overdose has occurred. Water spray, wet hessian or a curing compound should be used.

### Packing

K2 Reduplast WPA is available in 20 and 200 litre containers.

## STORAGE

K2 Reduplast WPA has a shelf life of 12 months at a temperature in the range of 20°C to 40°C.

### Health and safety

K2 Reduplast WPA is not hazardous. It should not be swallowed or allowed to come into contact with the skin and eyes. Protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with the eyes, it should be rinsed immediately with plenty of water and medical advice sought immediately. If swallowed medical attention is sought immediately. Vomiting should not be induced.

### Fire

Water based K2 Reduplast WPA is nonflammable.

---

## TECHNICAL SUPPORT

**The company provides a technical service supported by a team of specialist applicators in the industry**

### Important note :

Jay Chemical Industries Ltd products are guaranteed against defective materials and manufacture and are sold subject to its standard terms and conditions of sale, copies of which may be obtained on request. Whilst Jay Chemical Industries Ltd endeavors to ensure that any advice, recommendation specification or information it may give is accurate and correct, it cannot, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products whether or not in accordance with any advice, specification, recommendation or information given by it or its applicators.



### Head Office

Jay House, Panchvati Circle, Ambawadi, Ahmedabad - 380 006. India  
**Phone:** + 91 79 2642 3363 **Fax:** + 91 79 2642 5763

### Marketing Office

Site No. 26 & 27, SFHS Area, Tulasi House, Radial Road, Nandini Layout, Bangalore-560096. India  
**Telefax :** +91 80 2319 2605

**Email:** infok2@jaychemical.com

**Website:** www.jaychemical.com



AHMEDABAD, BANGALORE, BHUBANESHWAR, CHENNAI, CHANDIGARH, COIMBATORE, DELHI, GOA, GUWAHATI, HYDERABAD, KOCHIN, KOLKATA, MUMBAI, PONDICHERRY, PUNE, SIKKIM, VIJAYAWADA.