

Water-reducing and waterproofing concrete Admixture

## DESCRIPTION

**DUCONMIX WPR 700** is liquid admixture, allows superior workability in concrete with reduced water, and also achieves high resistance to water ingress. It is based on specially formulated polymers and compatible with all types of cement and binders (like fly ash, ground granulated slag, silica fume, metakaolin, etc.)

## RECOMMENDED USE

**DUCONMIX WPR 700** is used in all types of concrete and mortar that is used in all types of residential, commercial, and infrastructural construction. Also, it can be used in sea walls, tunnels, basements, structural, barrage, plaster mortar, top slab, and pre-cast concrete in exposed superstructures.

## FEATURES AND BENEFITS

- Liquid
- Low dosage required
- Water-reducing
- Workability
- Pump ability
- Reduces segregation.
- Improved surface finish.
- Improved compressive strengths
- Waterproofing admixture – Resistance to water penetration
- Increased durability.

## PERFORMANCE TEST DATA

Aspect	Dark Brown Liquid
Specific Gravity	1.065 ± 0.02 at 25°C
pH	≥6
Chloride ion Content	<0.2%
Surface Absorption of Water, BS 1881 – Part 122	50% Lower than Control

## TEST CERTIFICATION/APPROVALS

- IS:2645-2003
- IS:9103-1999
- ASTM C494: Types A

## DOSAGE

For a 50kg bag of cementitious material, 200g **DUCONMIX WPR 700** is recommended.

**DUCONMIX WPR 700** should be determined with trial mixes. Higher dosages may be required when certain combinations of materials and conditions are present or water reduction in excess of 15% is required. Because of variations in concrete materials, job site conditions, and/or applications, dosages outside of the recommended range may be required.

**To produce waterproof concrete following to be remember:**

- Make sure water-cement ratio is in the range of 0.40 to 0.60.
- Keep water content as below as possible.
- Place concrete as early as possible and make sure it's compacted.

**Over dose effects:**

- Increase in air entrainment.
- Loss of workability.
- Increase plastic shrinkage.
- Extension can be occurred in initial and final setting.
- Bleeding or segregation can be occurred.

### Statement of Responsibility (Disclaimer)

The technical information and application advise are based on present state of our best scientific and practical knowledge. As the information herein of a general nature, no assumption can be made as to a products suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

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## APPLICATION

**DUCONMIX WPR 700** is a ready-to-use liquid which is poured into the concrete together with the mixing water. **DUCONMIX WPR 700** added to the damp concrete after 50 to 70% of the mixing water has been added. The addition of **DUCONMIX WPR 700** to dry aggregate or cement is not recommended.

## SUGGESTED SPECIFICATION

**Duconmix WPR 700** is polymer base, waterproofing and plasticizing admixture. The product shall comply with IS:9103 and IS:2645-2003 when tested at a dosage of 100mg-200mg per 50kg bag of cement. The product must be free of chloride and shall comply with ASTM C494 type A&D.

## COMPABILITY

**Duconmix WPR 700** is compatible with most admixtures used in the production of quality concrete including normal, other mid-range and high-range water-reducing admixtures, air entrainers, accelerators, corrosion inhibitors and shrinkage reducer. It is also compatible with slag and pozzolans such as fly ash and silica fume.

## CORROSIVITY (NON CLORIDE, NON-CORROSIVE)

**DUCONMIX WPR 700** admixture will neither initiate nor promote corrosion of reinforcing steel embedded in concrete. Neither calcium chloride nor any chloride-based ingredients are used in the manufacture of **DUCONMIX WPR 700** admixture.

## PACKAGING

**DUCONMIX WPR 700** is available in 5kg, 10kg, 20kg & 250kg drums or bulk.

## WORKABILITY

**DUCONMIX WPR 700** ensures that concrete remains workable in excess of 60 minutes at +25°C. Workability loss is dependent on temperature, and on the type of cement, the nature of aggregates, the method of transport and initial workability. It is strongly recommended that concrete should be properly cured particularly in hot, windy and dry climates.

## STORAGE/ SHELF LIFE

**DUCONMIX WPR 700** must be stored where temperatures are between 5°C - 45°C. Store under cover, out of direct sunlight and protect from extremes of temperature. Shelf life is 24 months when stored as above. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

## PRECAUTION

Care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapor until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use.

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