



KUT PLAST IWP

Integral Waterproofing Admixture

ADM – 10 - 0104

DESCRIPTION

KUT PLAST IWP is a chloride - free waterproofing plasticising admixture which functions by forming an internal barrier against water penetration in concrete for production of reinforced concrete for structures subjected to high stress and where waterproof concrete and mortars are required. **KUT PLAST IWP** produces a cohesive and more workable concrete at constant water cement ratio or a concrete with same workability @ 5% *water* reduction when used at recommended dosage.

USES

- **KUT PLAST IWP** is specially recommended to be used in concrete which in contact with soil, foundations, walls, floors that must be water tight and in reinforced, pre-stressed concrete subjected to high stress, such as desalination plants, tunnels, culverts, sewage plants, water reservoirs, silos, pits, foundations, terraces, balconies and cellars.
- **KUT PLAST IWP** is also recommended for use alongwith **KUT PLAST NA/EDS** for interlock blocks & tiles.

ADVANTAGES

KUT PLAST IWP offers following advantages :

- **Increased Workability** : Reduces placing time.
- **Improved Strength** : Water reduction give higher strengths without cement increase or workability loss.
- **Water Proofing** : Provides better dispersion of cement particles giving closer packing and reduces pore size and minimizes capillary action in concrete. Provides protection against penetration of dampness and water under pressure.
- **Breathability** : The concrete retains its capacity to breathe.
- **Integral** : It is not a membrane or surface film.
- **Water Absorption** : Reduces water absorption
- **Easy to Use** : No special skills or extra labour is required.

- **Chloride Free** : Safe in reinforced concrete.
- **Compatibility With Cements** : Can be used with all types of Portland cements including sulphate resisting cement

TYPICAL PROPERTIES

- **Calcium Chloride Content** : Nil to **BS 5075:1982**.
- **Specific Gravity** : 1.03 at 20° C.
- **Air Entrainment** : Less than 1% additional air is entrained.
- **Setting Time** : Less than 2 hr. retardation at normal dosage.
- **Cement Compatibility** : Compatible with sulphate resisting and other portland cements.
- **Admixture Compatibility** : Generally compatible with all other **ASPEC** concrete admixture if added separately to the mix.
- **Water Proofing** : Water penetration typically less than 30mm when tested to **DIN 1048 Part-5 1991** and **DIN 1045 Page-24** clause 6.5.7.5 on atleast 3 test cube made from a concrete with w/c ratio of 0.45 at an age of 28 - 35 days and expressed as an average in mm

INSTRUCTION FOR USE

KUT PLAST IWP itself can not make poor quality concrete water proof. It has to be added in good quality concrete with w/c ratio of 0.4 to 0.6. It will require good concrete practice and good compaction of concrete.

Dosage : **KUT PLAST IWP** should be added at a rate of 1% of cement by weight, optimum dosage should determined by site trials with actual site conditions.

Overdosing : An overdose of double the recommended amount of **KUT PLAST IWP** will result in some retardation and increased air entrainment. The ultimate compressive strength of concrete will not be significantly affected.



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Curing : As with all structural concrete, normal curing methods apply

TECHNICAL SUPPORT

'**ASPEC**' provides technical support service on mix design, admixture selection, evaluation of trials, dispensing equipment etc. Please contact the Technical Department in these cases.

PACKAGING

KUT PLAST IWP is supplied in 20 and 210 litre drums.

Cleaning : Spillage of **KUT PLAST IWP** can be removed with water.

STORAGE : **KUT PLAST IWP** should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use. **KUT PLAST IWP** has a minimum shelf life of 12 months provided temperature is kept within the range of 5° C to 30° C.

PRECAUTIONS

HEALTH AND SAFETY

KUT PLAST IWP is non-toxic. Any splashes to the eyes should be washed immediately with water and medical advice should be sought.

Fire : **KUT PLAST IWP** is non-flammable.

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