

VARAPROOF IWP LIQUID

INTEGRAL WATERPROOFING ADMIXTURE

DESCRIPTION

VARAPROOF IWP LIQUID 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. **VARAPROOF IWP LIQUID** 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

- ◆ **VARAPROOF IWP LIQUID** 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.
- ◆ **VARAPROOF IWP LIQUID** is also recommended for use along with **VARAPLAST SP 10** for interlock blocks & tiles.

ADVANTAGES

VARAPROOF IWP LIQUID 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

STANDARDS

IS- 2645-2003

TYPICAL PROPERTIES

- ◆ **Calcium Chloride Content :**
 - Nil to **BS 5075:1982.**
- ◆ **Specific Gravity:** 1.10 at 25° C.
- ◆ **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 **AKARSH** 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

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

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

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

TECHNICAL SUPPORT

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

PACKAGING

VARAPROOF IWP LIQUID is supplied in 125 ml, 1, 5, liters and 200 kg / 225 kg drums.

Cleaning: Spillage of **VARAPROOF IWP LIQUID** can be removed with water.

STORAGE: **VARAPROOF IWP LIQUID** should be protected from extremes of temperature. Should the material become frozen, it must be completely thawed and thoroughly mixed before use. **VARAPROOF IWP LIQUID** 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

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

Fire: **VARAPROOF IWP LIQUID** is non-flammable.