

## Versatile Crystalline Waterproofing Admixture

### DESCRIPTION

**TIKICRYST 400** is versatile crystalline waterproofing and permeability reducing concrete additive in dry powder form, effective in enhancing the concrete impermeability and durability by effectively sealing concrete pores and capillaries and reducing the shrinkage cracks

**TIKICRYST 400** is versatile concrete additive which is added at the recommended dosage rate irrespective of cement / cementitious content in the concrete mix.

**TIKICRYST 400** admixture is free from stearates, silicates, chlorides and oils. When added to fresh concrete, the proprietary active components reacts with un-hydrated cement particles to form innumerable needlelike crystals filling the capillaries pores in concrete and reducing its size and numbers, thus making the concrete impermeable.

### ADVANTAGES

- Allows concrete to withstands extreme hydrostatic pressure and enhances concrete durability
- Reduces shrinkage cracks.
- Reduces water demand up to 7%.
- Compatible with all grades of concrete
- Imparts integral water tightness to structures
- Protects reinforced concrete and hence steel from attack by waterborne corrosive chemicals such as sulphates, chlorides and corrosive salts.
- Self-seals static cracks up to 0.4mm
- Permanently active technology - crystalline action is reactivated by contact with moisture or water
- Equally effective against both positive and negative water pressure
- Reduces efflorescence
- Low dosage - economical

### USES

**TIKICRYST 400** is use as crystalline waterproofing and permeability reducing concrete additive to provide permanent protection to all structural concrete that will be subjected to water pressure or remains in contact with water, such as:

- Below ground structures, basements, retaining walls, foundations, elevator pits
- Swimming pools, water tanks, & water reservoirs
- Aquarium and water parks
- Structural and pre-cast concrete and pipes
- Marine structures
- Tunnels, dams, canals
- Bridge decks and parking decks
- Sewage and water treatment plants
- Roof slabs

**TIKICRYST 400** is also use as crystalline waterproofing admixture for cement mortars and plasters.

### PROPERTIES

Colour	Grey
Appearance	Free flowing granular powder
Bulk Density	≈1300 Kg./m <sup>3</sup>
Solids	100%
Water Resistance	170 m of water head pressure

### APPLICATION INSTRUCTIONS

**TIKICRYST 400** is ready to use dry powder that may be added directly to the wet concrete mix during batching or added directly to the ready mix truck prior to arrival at the site.

It does not require pre-wetting or pre-mixing in to slurry.

As **TIKICRYST 400** improves the workability of mix, it is recommended to reduce the water component by 7 to 10% to offset increased slump and workability.

Allow mixing for ≈5 minutes at high speed to ensure a homogeneous distribution of the product in the mix. Should addition of other admixture is required, add it after the addition of the product. Do not add water to the mix to increase slump.

### DOSAGE

Irrespective of cement content / cementitious content of concrete mix, it is recommended to add 4 Kg. of **TIKICRYST 400** in one cubic meter of concrete mix.

### COMPATIBILITY

**TIKICRYST 400** is suitable for use in concrete mixes prepared with all grades of cement including slag and pozzolans.

It is compatible with most admixtures used in the production of quality concrete.

As **TIKICRYST 400** increases air-entrainment by 1% to 3%, it is not recommended to use **TIKICRYST 400** with air-entraining admixture.

It is recommended to conduct site trial with the admixture in concrete mix to arrive at compatibility with various cementitious materials.

### SUPPLY

**TIKICRYST 400** is supplied in 30 Kg., pack size.

### STORAGE

**TIKICRYST 400** must be stored above 5°C. Store under the shed & protect from extremes of temperature, heat, direct sunlight. The shelf life is 12 months in sealed unopened container.

### SAFETY PRECAUTIONS

As with all chemical products, care should be taken during use and storage. This product becomes alkaline when mixed with water, avoid contact with skin, eyes, mouth and food. For further detail, refer to Material Safety Data Sheet.

#### VERSION: R1, 202003

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