

TECHNICAL DATA SHEET

HomeSure w-Shield AQUA CONTROL MAX CRYSTALLINE WATERPROOFING ADMIXTURE

HomeSure w-Shield Aqua Control Max, crystalline waterproofing admixture is a cement-based, integral additive used to enhance concrete's durability and waterproofing properties. It works by reacting with moisture and unhydrated cement particles to form insoluble crystalline structures within the concrete matrix. These crystals block capillary pores and microcracks, preventing water ingress while allowing vapor permeability.

INDICATIVE TECHNICAL DETAILS

Nature	: Grey colour powder
Composition	: Cement, soda ash and additives
Bulk density	: 900 – 1150 kg/m ³
Specific gravity	: ~2.8
Chloride ion content	: Nil
Setting time	: Negligible effect
Strength	: Compressive & flexural strength equal or slightly higher than control
Water pressure head	: 50 – 150 meter
Penetration rate @ 5 bar	: < 0.003ml/sq.m/day

APPLICATION AREAS

- ❖ Basements, foundations, and retaining walls
- ❖ Water tanks, reservoirs, and wastewater treatment plants
- ❖ Tunnels, dams, and marine structures

FEATURES AND BENEFITS

Permanent Waterproofing: Provides lifelong waterproofing by becoming an integral part of the concrete

Improved Durability: Enhances resistance to freeze-thaw cycles, chloride ingress, and sulphate attack.

Cost-Effective: Reduces the need for external membranes or coatings.

GUIDANCE FOR USE

Dosage: 0.8–2.0% by weight of cementitious material

* The dosage amount depends on the concrete or mortar mix design and the cement's reactivity. Trial applications should be conducted to determine the appropriate dosage.

Dosage in Ready-Mix Factory:

- Add the HomeSure w-Shield Aqua Control Max crystalline waterproofing admixture to the aggregate and sand.
- Mix for at least 30 seconds before adding water and cement.
- Continue mixing for at least 45 seconds to ensure the concrete achieves the desired workability and homogeneity.

Dosage in Batch Truck (On-Site):

- Prepare a slurry by mixing the HomeSure w-Shield Aqua Control Max crystalline waterproofing admixture with water in a 1:1.25 ratio by weight in a suitable vessel.
- Add the slurry to the mix drum of the batch truck.
- Mix for at least 1 minute per cubic meter of drum content, with a minimum mixing time of 5 minutes to ensure uniform dispersion.
- Important: Do not add the dry powder directly to wet concrete as it may cause clumping and uneven dispersion.

Dosage in Precast Batch Plant:

- Add the HomeSure w-Shield Aqua Control Max crystalline waterproofing admixture to the aggregate and sand.
- Mix for 2-3 minutes before adding water and cement.
- Continue mixing for an additional 1 minute until the concrete achieves its desired working properties.

Setting Time:

- The setting time of concrete may vary based on the mix design, ambient temperature, and cement reactivity.

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Compatible with Other Admixtures: Works well with plasticizers, retarders, and other commonly used concrete admixtures

Low Maintenance: Reduces repair and maintenance costs due to its long-lasting performance

- Higher ultimate strength may be achieved with the use of the admixture.
- In some cases, a concrete retarder may be required. Conduct suitability tests before application.

CLEANING & EQUIPMENT MAINTENANCE

Regularly flush dispensing equipment with water to ensure consistent performance and reduce the risk of breakdowns.

SHELF LIFE & STORAGE INSTRUCTIONS

- ✚ 12 months from the date of manufacturing when stored in unopened, original sealed and dry condition at a temperature range from +5°C to 40°C.
- ✚ Store in dry and well-ventilated place away from heat source or direct sunlight.

ADDITIONAL NOTES

- ❖ Homogeneous mixing is essential to ensure optimal performance; never add the dry admixture powder directly to wet concrete.
- ❖ Conduct concrete trials as per standard protocols to determine the appropriate dosage and assess compatibility with specific mix designs.

HEALTH & SAFETY INFORMATION

- ★ Refer MSDS for information and advice on the safe handling, storage and disposal of chemical products.
- ★ Use rubber hand gloves & safety goggles, while using product.
- ★ Avoid contact with skin/eyes and avoid swallowing. In case of contact with skin, wash with plenty of water.
- ★ Spillages of HomeSure w-Shield Aqua Control Max crystalline waterproofing can be removed by dry wiping using brush.
- ★ Keep out of reach of children.

PACKING

Available in 25 kg bags.



WALPLAST PRODUCTS PRIVATE LIMITED

ISO 9001:2015 CERTIFIED

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