

Product Data Sheet

CasTech WT-145

Nov-2025, Ver. 01.01

Crystalline Permeability Reducing Admixture

DESCRIPTION

CasTech WT-145 is an integral powdered crystalline permeability reducing admixture for concrete. It is designed to permanently reduce water permeability and enhance the durability of concrete structures. CasTech WT-145 meets the requirements of ASTM C494/AASHTO M 194, Type S and is certified to NSF/ANSI/CAN 61.

Typical Uses

CasTech WT-145 is recommended for a wide range of watertight concrete applications, including:

Industrial Applications:

- Tunnels and Subway Stations
- Manholes and Sewage Systems
- Bridges and Water Treatment Plants
- Dams, Reservoirs, and Water Tanks
- Secondary Containment Structures

Commercial Applications:

- Underground Parking Garages
- Basements and Elevator Pits
- Shopping Centers and Data Centers
- Water Parks and Swimming Pools

Residential Applications:

- Foundations and Concrete Basements
- Swimming Pools

Advantages

- Integral Protection – Provides uniform waterproofing throughout the entire concrete volume.
- Self-Sealing – Activates in the presence of moisture to seal non-moving cracks up to 0.4 mm.
- Enhanced Durability – Reduces water ingress, protecting reinforcement and extending service life.
- Hydro-static Resistance – Effective against water under pressure.
- Minimal Impact on Concrete Properties
- Does not significantly affect set times or compressive strength.
- Cost-Effective – Lowers construction costs compared to external membranes.

Standards

CasTech WT-145 Complies with ASTM C494/AASHTO M 194, Type S. Certified to NSF/ANSI/CAN 61.

Technical data

(25°C, 50% RH)

Characteristic	Specification
Composition	Proprietary crystalline chemicals in a cementitious carrier
Form	Dry Powder
Color	Light Gray
Recommend Dosage	1.5 - 2.0% by weight of cementitious materials
Density	≈ 1.30 kg/L (Typical)
Shelf Life	12 months (in original, unopened packaging)

Application

DOSAGE

- Typical dosage is 1.5 - 2.0% by weight of cementitious content. Conduct trial mixes with project materials to determine optimal dosage.

MIXING

- Add 25 kg re-pulpable bags directly into the mixer, unopened, prior to or during the aggregate loading phase.
- Mix for a minimum of 3 minutes at medium/high speed to ensure complete bag disintegration and homogeneous dispersion.
- Do not add bags to freshly mixed concrete.

COVERAGE

- Based on a standard dosage of 2% by weight of cementitious materials (e.g., 400 kg/m³ cement).
- Consumption: Approximately 8.0 kg per m³ of concrete.

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Hazard

- Regarded as non-hazardous for transportation.
- Disposal: Do not reuse containers. To be disposed as per local rules and regulations.
- Additional Information : Refer to MSDS (available on request.)

Technical Support

CasTech provides on-site assistance and consulting services on projects when requested. Technical data sheets on other CasTech products and guidance on their use is available on request

CONCRETE DESIGN & CURING

- For optimum performance, design concrete with a minimum cementitious content of 350 kg/m³ and a maximum water-cement ratio of 0.42.

Packaging, Storage & Shelf Life

- 25 kg repulpable bags.
- Storage: Store in a dry environment on pallets, below 40°C.
- Shelf life: 12 months from date of manufacture in original, unopened packaging.

CasTech MIDDLE EAST FZE

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