



HYDROBLOC SH 501

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Mineral Surface Hardener, Alkali Stabilizer & Salt Neutralizer Zinc Hexafluoro silicate-Based Penetrating Treatment

Product Description:

HYDROBLOC 501 is a penetrating mineral surface hardening treatment based on zinc hexafluoro silicate technology. It reacts with residual free lime, alkalis and mineral constituents within cementitious substrates to form insoluble mineral compounds, further hardening, stabilizing and densifying the near-surface concrete matrix. It improves abrasion resistance, reduces dusting, enhances surface durability and stabilizes weak or weathered cementitious substrates. HYDROBLOC 501 is not a coating and does not form a surface film. It penetrates the substrate and becomes an integral part of the treated surface.

Key Features & Benefits:

- Penetrating mineral hardener
- Improves surface hardness
- Enhances abrasion resistance
- Reduces dusting and chalking
- Stabilizes weak surfaces
- Assists in reducing efflorescence recurrence
- Improves durability of subsequent coatings
- Breathable treatment
- Non-film forming
- Suitable for interior and exterior use
- Suitable for concrete, screeds, plaster and masonry
- Compatible with Hydrobloc waterproofing systems

Areas Of Application:

- Industrial concrete floors
- Warehouses and parking structures
- Concrete hardstands and pavements
- Cement-sand roof screeds
- Weak and dusting roof screeds
- Waterproofing surface preparation
- Interior and exterior cement plaster
- Weathered and chalking plaster surfaces
- Clay brick masonry
- Exposed brick façades
- Historic masonry rehabilitation
- Cement blocks and concrete blocks
- Weathered concrete
- Carbonated concrete
- Salt-affected masonry
- Dusting cementitious surfaces



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Surface Preparation:

Substrates must be structurally sound, clean and dry before application. Remove dust, loose material, oil, grease, contaminants, curing compounds, surface sealers and any material that may prevent penetration. Efflorescence deposits should be removed before treatment. Painted or sealed surfaces must be mechanically prepared or stripped to allow proper penetration of Hydrobloc SH 501.

Mixing Instructions:

Hydrobloc SH 501 may be used neat or diluted with clean water depending on the substrate condition and porosity.

Substrate	Dilution
Dense Concrete	Use Neat
Industrial Floors	Use Neat
Standard Concrete	Use Neat
Roof Screeds	Use Neat
Cement Plaster	1 : 1 with Water
Clay Brickwork	1 : 1 with Water
Cement Blocks	1 : 1 with Water
Highly Porous Masonry	1 : 1 to 1 : 2 with Water

Application Guidelines:

Apply Hydrobloc SH 501 uniformly using low-pressure spray, roller or soft brush. Apply to saturation without excessive ponding.

- Prepare substrate as specified.
- Apply Hydrobloc SH 501 evenly over the surface.
- Maintain a wet surface for 15–20 minutes.
- Apply additional material where rapid absorption occurs.
- Allow excess material to penetrate.
- Remove unabsorbed material using sponge, damp cloth or rubber squeegee.
- Allow treated surfaces to cure before further coating or waterproofing work.

Minimum curing period before coatings, waterproofing systems or sealers: **24 hours**.

Application Limitations:

Do not apply during rain. Do not apply to frozen substrates. Do not apply over painted or sealed surfaces. Not intended as a standalone waterproofing treatment. Excess material should not be allowed to dry on dense surfaces. Trial applications are recommended before large-scale use.



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Coverage/ Consumption:

Surface Type	Typical Coverage
Dense Concrete	7.1–10.7 m ² /kg
Standard Concrete	5.4–8.9 m ² /kg
Porous Concrete	3.6–7.1 m ² /kg
Roof Screeds	3.6–5.4 m ² /kg
Cement Plaster	4.5–7.1 m ² /kg
Clay Brickwork	3.6–7.1 m ² /kg
Concrete Blocks	3.6–6.3 m ² /kg

Coverage varies depending on substrate porosity, texture and application method.

Curing & Protection:

Allow treated surfaces to cure naturally. Protect freshly treated surfaces from rain, water exposure, contamination, frost and heavy traffic during the curing period.

Minimum curing period before overcoating: 24 hours at 25°C.

Overcoating:

Hydrobloc SH 501 may be overcoated after complete drying with:

- Hydrobloc UniPrime
- Hydrobloc FX
- Hydrobloc UL
- Cementitious waterproofing systems
- Acrylic coatings
- Elastomeric coatings
- Silane/siloxane sealers
- Epoxy coatings
- Polyurethane coatings, subject to adhesion testing
- Minimum overcoating interval: 24 hours at 25°C.

Packaging:

Hydrobloc SH 501 is available in:

- 6 kg
- 25 kg



HYDROBLOC

BUILT ON PERFORMANCE

HYDROBLOC SH 501

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Storage & Shelf life:

Store in original unopened containers. Protect from frost, direct sunlight and excessive heat.

Storage temperature: 5°C – 35°C

Shelf life: **24 months** when stored under recommended conditions.

Health & Safety:

Hydrobloc SH 501 is acidic in nature. Wear protective gloves, safety goggles and suitable protective clothing during handling and application. Avoid contact with skin and eyes. In case of contact, rinse immediately with clean water. Refer to the relevant Safety Data Sheet before use

Technical Data:

Property	Typical Value
Appearance	Clear Liquid
Colour	light transparent yellow
Odour	Mild
Specific Gravity	1.12 – 1.18
pH	1 – 1.5
Active Mineral Solids	16 – 18%
Solubility	Completely miscible in water
VOC Content	Nil
Flash Point	Non-Flammable
Application Temperature	+5°C to +40°C

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Protective Solution



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Typical Performance Benefits:

Applied as Standalone Treatment

Property	Typical Improvement
Surface Hardness	10 – 25%
Abrasion Resistance	15 – 35%
Surface Cohesion	10 – 25%
Dust Reduction	Up to 90%
Water Absorption	10 – 25% Reduction

Applied Following Hydrobloc 730 Surface Densifier

Property	Typical Improvement
Surface Hardness	25 – 50%
Abrasion Resistance	25 – 55%
Surface Cohesion	25 – 50%
Dust Reduction	Up to 95%
Water Absorption	40 – 70% Reduction

Performance depends upon substrate condition, porosity and application methodology.

Performance Development

Time After Application	Typical Observation
24 Hours	Initial hardening and surface stabilization
3 – 7 Days	Reduced dusting and improved cohesion
14 – 28 Days	Significant hardness development
30 Days+	Full performance development