DampStop CS

Salt converter and neutraliser for rising damp treatment

1 L · 5 L · 20 L

PRODUCT DESCRIPTION

DRYVATEC D201 DampStop CS is a solvent-free liquid surface treatment that neutralises the hygroscopic salts left behind in a wall by rising damp, converting them into harmless, water-insoluble compounds.

Water rising by capillary action carries nitrates, sulphates and chlorides up through the wall cross-section. As the water evaporates at the surface the salts remain. These salts are hygroscopic — they draw moisture from the air. As a result, even after an injection barrier has been installed and the rise of water stopped, the wall surface remains damp and the render continues to blister.

D201 CS breaks this cycle: it binds the salts by chemical reaction and arrests crystal growth and migration. It is an intermediate step, applied after injection and before surface renovation.

MODE OF ACTION

The product penetrates the pore structure of the building material and reacts with the dissolved salts on a fluosilicate basis:

- Water-soluble salts are converted into stable, water-insoluble compounds — sodium and potassium hexafluorosilicate — which no longer attract moisture or migrate to the surface.
- Reaction products remain on the pore wall and increase the surface hardness and adhesion of the material; silica (SiO) is formed in the treated zone.
- The pores are not blocked — the wall continues to transmit water vapour and to breathe.
- The treated surface remains colourless; the appearance of the substrate is unchanged.

The treatment also reduces the microbiological load on the surface. On surfaces to be waterproofed from the negative side, it must be applied before the waterproofing layer.

TECHNICAL DATA

AT +23 °C / 50 % RELATIVE HUMIDITY	
Product type	Fluosilicate based salt converter
Appearance / colour	Clear, colourless liquid
Density (20 °C)	approx. 1.1 g/cm³
Mode of action	Salt neutralisation
pH	approx. 1.7 (acidic)
Freezing point	approx. 0 °C
Application method	Spray or injection
Waiting time between coats	approx. 24 hours
Absorption time	15 – 30 minutes
First coat dilution	1:1 with water (optional)
Flash point	Not applicable — not flammable
Application temperature	Minimum +5 °C
Consumption	1.0 – 1.5 L/m²
Shelf life	24 months
Packaging	1 L · 5 L · 20 L

Values are typical figures obtained at +23 °C / 50 % relative humidity.

POSITION IN THE SEQUENCE

D201 CS is not a stand-alone solution. The correct order is DampStop injection D201 CS salt neutralisation HydroFix damp-proofing render. Where the salt load is high and this intermediate step is omitted, the new render will blister within months.

DIAGNOSING A SALT PROBLEM

Signs of hygroscopic salts

- White, feathery or crusty deposits on the wall surface, concentrated just above the damp line.
- The surface darkens as air humidity rises and lightens in dry weather — the characteristic sign of moisture attraction.
- Newly applied render blisters and falls away within a few months.
- If injection has been carried out and the rise of water has stopped but surface damp persists, salts are the most likely cause.

Application decision

SUBSTRATE / WALL TYPE	STATUS	NOTES
Visible efflorescence	Suitable	D201 CS is mandatory
Historic or masonry building	Suitable	Salt load is typically high
Damp persists after injection	Suitable	Residual salts neutralised
New building, no salt traces	Conditional	May not be necessary
Active water leak present	Not suitable	Eliminate the source first

Where the salt load is not visually apparent, nitrate and chloride test strips can be used on dust scraped from the surface.

SUBSTRATE SUITABILITY

SUBSTRATE / WALL TYPE	STATUS	NOTES
Brick, natural stone, mixed masonry	Suitable	Absorbent mineral substrate; most effective
Pumice, aerated concrete, adobe	Suitable	High absorbency; calculate from upper consumption values
Cement render, fair-faced concrete	Suitable	Provided it is sound and dust-free
Painted or coated surfaces	Not suitable	Cannot penetrate; surface must be removed
Gypsum plaster, plasterboard	Not suitable	Chemically incompatible
Timber, metal, plastic	Not suitable	Designed for mineral substrates

SURFACE PREPARATION

- Damaged render, paint and loose salt crust are removed completely; the surface must be dry.
- Debris is taken away from the area — it is salt-laden and can re-contaminate the wall.
- The surface is cleaned of dust with compressed air or a brush.
- Where injection is to be carried out, D201 CS is applied after the injection.

APPLICATION

01 The first coat may optionally be thinned 1:1 with water and sprayed.

02 Subsequent coats are applied undiluted at approximately 24-hour intervals until the surface reaches saturation.

03 A low-pressure manual spray gun is used; the product is absorbed within 15 – 30 minutes.

04 Where salt concentrations are very high, the product is injected into the wall cross-section instead of being sprayed onto the surface.

05 Once the reaction is complete, HydroFix damp-proofing render is applied.

CONSUMPTION

SURFACE CONDITION	COATS	CONSUMPTION	COVERAGE PER LITRE
Low salt load, even surface	2	1.00 L/m²	approx. 1.0 m²
Medium salt load (typical)	2 – 3	1.25 L/m²	approx. 0.8 m²
Heavy efflorescence, absorbent	3	1.50 L/m²	approx. 0.7 m²

Consumption varies with the absorbency of the surface and the salt load. The governing criterion is not the number of coats but saturation: the treatment is complete when the sprayed product is no longer absorbed and begins to remain on the surface.

COMMON MISTAKES

- **Applying before injection**
  The order is wrong. The rise of water must be stopped first, then the residual salts neutralised.
- **Spraying onto a damp surface**
  The product cannot penetrate the pores, remains on the surface and the reaction is incomplete.
- **Stopping at a single coat**
  Where saturation is not reached, part of the salt load remains active.
- **Leaving debris on site**
  The debris is salt-laden and re-contaminates the new render.
- **Rendering before the reaction is complete**
  Salts continue to crystallise under the new render and the layer blisters.

POST-APPLICATION CHECKS

- Saturation check: on the final coat the product should begin to remain on the surface rather than being absorbed rapidly.
- Visual check: no new white deposits should form after drying.
- Moisture behaviour: the surface no longer darkening on rainy days indicates that the hygroscopic effect has been broken.
- Before rendering: the surface must be completely dry and dust-free; HydroFix is then applied.

STORAGE

24 months in unopened original packaging. Store protected from frost (freezing point approx. 0 °C). Do not store in metal containers.

SAFETY

The product is acidic (pH approx. 1.7). Wear gloves, eye protection and a mask. Do not use metal containers or equipment. Refer to the Safety Data Sheet.

LIMITATIONS

Not a damp solution on its own; it does not stop the rise of water. Glass, ceramic and metal surfaces must be protected during application.

POSITION WITHIN THE THREE-STAGE SYSTEM

D201 CS is the intermediate step between DampStop injection and HydroFix render.

01 DampStop
Horizontal chemical barrier inside the wall

02 HydroFix
Water-repellent surface renovation layer

03 Nem Kutusu
Electromagnetic drying in reinforced concrete

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