

Technical Data Sheet

StoCryl V 700

Coating with biomimetic function



Characteristics

- Area of application**
- exposed to the weather
 - as a coating with biomimetic function specially for concrete structures
 - for the protection and coloured decoration of concrete structures

- Properties**
- rapid drying after rain or dew formation due to biomimetic principle
 - prevents the ingress of water and harmful substances dissolved in water
 - regulates the moisture balance
 - increases electrical resistivity
 - good carbon dioxide impermeability (S_d value for $CO_2 > 50$ m)
 - good water vapour diffusion capacity (S_d value for $H_2O < 4$ m)
 - minimal extender material breakdown / not easily scuffed
 - highest whiteness
 - high level of colour shade variety and stability
 - without biocide film protection

- Appearance**
- matt (G3) accordance with EN 1062-1

- Information/notes**
- product is in accordance with EN 1504-2
 - not suitable for horizontal surfaces in contact with water
 - not suitable for surfaces subject to foot or vehicle traffic

Technical data

Criterion	Standard / test specification	Value/ Unit	Notes
Density	EN ISO 2811	1,2 - 1,4 g/cm ³	
Diffusion-equivalent air layer thickness	EN ISO 7783	0,50 m	V2 medium
Water permeability rate w	EN 1062-1	< 0,05 kg/(m ² h ^{0,5})	W3 low
Water vapour diffusion-equivalent air layer thickness μ	EN ISO 7783	2.520	
Gloss	EN 1062-1	G3 - Matt	G3
Dry layer thickness	EN 1062-1	150 μ m	E3 > 100; \leq 200
Grain size	EN 1062-1	< 100 μ m	S1 fine
Carbon dioxide permeability	EN 1504-2:2004		sd > 50 m

Technical Data Sheet

StoCryl V 700

The characteristic values stated are average values or approximate values. Due to the natural raw materials in our products, the stated values can vary slightly in the same delivery batch; this does not affect the suitability of the product for its intended use.

Substrate

Requirements

The substrate must be dry, clean, load-bearing, and free from native and foreign substances that have a separating action.
Remove less strong layers and laitance.

Dry in accordance with the definition of the DAfStb (German) Repair Guideline 2001-10, but depending on the compressive strength class. The moisture content may not exceed 4 CM per cent for concrete qualities up to C30/37 and max. 3 CM per cent for C35/45 concrete, measured with a calcium carbide meter.

Existing coats:
Firmly adhering and load-bearing

Preparations

Prepare the substrate using a suitable mechanical process, such as abrasive blasting or high-pressure water blasting (> 800 bar).
Open pores and blow-holes sufficiently.

Application

Application temperature

Lowest application temperature: +8 °C
Highest application temperature: +30 °C

Material preparation

Ready-to-use, stir thoroughly before first application.

For machine application, the amount of water to add depends on the requirement of the respective machine/pump.

As a rule, strong colour shades need less added water to achieve the optimum application consistency.

Consumption

Type of application	Approx. consumption
as coating (2 layers)	0,24 - 0,30 l/m ²

Material consumption depends on the application, substrate, and consistency, among other factors. The stated consumption values are only to be used as a guide. If required, determine precise consumption values on the basis of the specific project.

Coating build-up

Coating on hydrophobic impregnation
 1) Substrate preparation
 2) Hydrophobic coating of StoCryl HP 100 or StoCryl GW 100
 3) Coating: StoCryl V 700 (first layer) diluted with approx. 5 wt% water
 4) Coating of StoCryl V 700 (second layer)

Technical Data Sheet

StoCryl V 700

Coating on fine filler

- 1) Substrate preparation
- 2) Fine filler using StoCrete TF 204
- 3) Coating: StoCryl V 700 (first layer) diluted with approx. 5 wt% water
- 4) Coating of StoCryl V 700 (second layer)

Application

Manual application: by paint brush or by roller

Machine application: by spray

Spray with low overspray:

Low material consumption without rolling afterwards:

Nozzle: 4/19 or 4/17

Pressure: approx. 200 - 250 bar

Application of higher material quantities with rolling afterwards:

Nozzle: 5/21

Pressure: approx. 120 bar

Airless equipment:

InoSPRAY M 5 or comparable device

If necessary, create project-specific test surfaces

Drying, curing, ready for next coat

At +20 °C temperature (air and substrate) and 65 % relative air humidity: over-coatable after approx. 24 hours.

High humidity and/or low temperatures prolong drying.

Cleaning the tools

Clean with water immediately after use.

Notes, recommendations, special information, miscellaneous

The declaration(s) of performance can be obtained from the StoCretec Technisches InfoCenter
General application instructions are available at www.stocretec.de and in the notes of the latest Technical Manual.

Protective colloids/streaking:

If there is premature contact with water (condensation or rain) after application, water-soluble protective colloids may be released from the coating film and appear as glossy streaks on the coating surface. Because the processing aids remain water-soluble, subsequent contact with water (e.g. due to thawing, rain) washes them off as a matter of course.

This does not impair the quality of the dried coating.

Technical Data Sheet

StoCryl V 700

Hiding power:

Depending on the selected colour shade, e.g. intense yellow or intense red, differences in hiding power can occur. An extra application cycle can therefore be useful, in addition to the application cycles listed in the "Coating build-up" section of the Technical Data Sheet.

The hiding power of the colour shades mentioned above can be increased by pre-coating the surface with a colour shade with better hiding power that is matched to the selected colour shade.

Delivery

Colour shade white, tintable in accordance with the StoColor System

Packaging pail

Article number	Name	Container
01757-008	StoCryl V 700 white	15 l pail
01757-007	StoCryl V 700 tinted	15 l pail

Storage

Storage conditions Store in dry and frost-free conditions. Protect from direct sunlight.

Storage life The product quality is best guaranteed in its unopened original container until its shelf life has expired. The first digit of the batch number is the final digit of the year. The second and third digits indicate the calendar week. Example: 1450013223 - shelf life until end of calendar week 45 in 2021. See product packaging

Identification

Product group Coating

GISCODE BSW20

Special notes

The information in this Technical Data Sheet serves to ensure the product's intended use, or its suitability for use, and is based on our findings and experience. Users are nevertheless responsible for establishing the product's suitability and use. Applications not specifically mentioned in this Technical Data Sheet are permissible only after prior consultation. Where no approval is given, such applications are at the user's own risk. This applies in particular when the product is used in combination with other products.

Technical Data Sheet

StoCryl V 700

When a new Technical Data Sheet is published, all previous Technical Data Sheets are no longer valid. The latest version is available on the Internet.

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