



TECHNICAL DATA SHEET

sto

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StoLotusan Color

Facade paint with Lotus-effect.
Dirt is repelled with the rain.

Material description



Type of material

Facade paint with "Lotus-effect".

Water based material containing an organic binder, fillers and additives.

Binder

Silicone resin emulsion/dispersion.

Fillers

Carbonates and silicates.

Additives

Film forming agent, wetting agent, anti-foaming agent, thickeners and preservatives. Pigments: Titanium dioxide (rutile).

Thinner

Diluting agent: Water.

Uses

Facade coating for the following substrates

- Mineral substrates
- Synthetic resin, silicone and silicate renders and coatings
- Fair-faced masonry made of natural stone and brick
- Old coatings made from lime, cement, silicate, dispersion and silicone paints

Keeps facades dry and looking attractive - even highly-stressed weather-exposed facades.

Offers increased security for both modern and old facades.

Areas of use

For exterior use.

Restrictions

Do not use on damp substrates.

Uses not clearly described in this Technical Data Sheet should only take place after consultation with Sto Ltd.

Application

Substrate

The substrate should be load-bearing, level, clean and dry as well as free of efflorescences and separating agents.

Critical substrates must be tested for suitability (create a test surface).

Substrate preparation

Remove loose paint and plaster coatings.

Allow new plasters to set for at least 14 days before proceeding.

Non load-bearing, weak suction substrates have to be primed. (see table 1 for details)

Coating procedure

Undercoat (if necessary)

Undercoat according to type and condition of substrate. (see table 1)

Intermediate coat

StoLotusan Color, diluted by approx. 5 - 10 % with clean water.

Top coat

StoLotusan Color, diluted by up to 10 % with clean water.

Product characteristics

- Extremely reduced adhesion of dirt particles, hence self-cleaning when wet.
- Increased natural protection against algae and fungal attack owing to removal of the elements fundamental to their existence, i.e. water and dirt deposits.
- Free from biocides.
- Ideal protection against humidity and dirt, even for highly-stressed weather-exposed facades.
- Good water vapour diffusion.
- Excellent weather and chalking resistance; UV-resistant.

Material preparation

The material is - after mixing thoroughly - ready for use.

If necessary, dilute the material slightly by up to 10 % with clean water.

Manual application

By brush or roller.

Machine application

The material can be spray applied. See table 2 for details. (More details on request.)

Drying time

The drying time depends on the temperature and the relative humidity.

At 20 °C and 65 % relative humidity the product can be overcoated after approx. 8 hrs.

Drying times will be prolonged by lower temperatures and/or higher humidity.

Consumption

Approx. 0.17 – 0.20 l/m² per coat, depending on the substrate.

Application temperature

Air and substrate temperature should not be less than + 5 °C (until the material has completely set.)

Protective measures

No special protective measures (respiratory protection e.g.) are necessary. The usual precautionary measures while handling chemicals are to be considered.

Cleaning of tools

Immediately after use with water.

Delivery**Product code and name**

?? - 001 StoLotusan Color, white
?? - 001 StoLotusan Color, tinted

Table 1: Substrate preparation
Before painting with StoLotusan Color

Substrate	Treatment	Undercoat *)
New mineral plaster	After the plaster has cured and dried prime if necessary	Sto-HydroGrund
Concrete	Clean and prime	Sto-HydroGrund
Natural stone or brick fair-faced masonry	Clean and prime	Sto-HydroGrund
Old dispersion coatings, synthetic resin renders	Clean and prime if necessary	Sto-HydroGrund
Sandy/chalky surfaces	Clean carefully and prime	Sto-HydroGrund
EWIS-systems with EPS polystyrene insulating boards	Clean and prime	Sto-HydroGrund (solvent-free)

*) Primers should always be diluted appropriately for the substrate.

Table 2: Airless spray values

	Value	Unit
Spray nozzle size	0,021	[inch]
	0,53	[mm]
Spray angle	40 - 60	[°]
Pressure	150 - 200	bar
Dilution	up to 5 %	

Packaging

Pail (PE): 10 and 15 ltr net.
StoSilo large containers
(not available in all countries).

Colour

Available in white and tinted to selected colours of the StoColor System.

StoLotusan Color can be tinted by up to 3 % with StoSilco Tint.

During strong mechanical load it is possible that - with intensive colours - discoloration may occur.

This is, due to the white natural moulding sand used by filler break or pigment abrasion of and/or used natural fillers, these may appear lighter. The product quality and functionality are not affected.

Gloss
Matt.

Algae and fungus prevention

StoLotusan Color is manufactured with natural bactericides and free from biocides.

Please note that the effects are not guaranteed to last indefinitely.

Storage and transport

Marking

In accordance with European Union guidelines and national regulations:

VbF: -
EU/GefStoffV: -
GGVS/ADR: -
UN-Nr.: -

GISBAU-Code: M-SF01
VVS-Code: -
BAGT-Nr.: 619 000

Storage

Keep container tightly closed and store in frost free conditions.

Storage life

In unopened original containers (pails), product can be stored for a minimum of 24 months. (Relevant data: refer to packaging).

Transport

No special protective measures or hazardous goods markings are necessary. Not marking requiring.

Environment and health

Health

Application of StoLotusan Color poses no known or suspected health risk when correct procedures are followed.

The bound material likewise poses no known or suspected health risk in the light of present knowledge.

Risk warnings (R-phrases)

None.

Safety precautions (S-phrases)

None.

Measures in case of accident

In case of accident: Soak up with absorbent material and dispose of in accordance with local regulations.

Disposal

Waste has to be disposed considering the local, official regulations. Material into drains to arrive do not leave.

Old, non-set material should be mixed with cement, left to dry and then disposed of.

Waste key in accordance with the European Waste Catalogue: 08 01 12.

For further information on handling, storage and disposal of the product, please refer to the current EU Material Safety Data Sheet, available on request for professional users. (Relevant data).

Physical data

Physical data

See table 3.

Certificates and test reports

StoLotusan Color test reports:

- Report 1668/99 (18.03.1999)
FPL - Forschungsinstitut für Pigmente und Lacke e.V., Stuttgart (Germany)
- Report FEB-5/1999 (19.07.99)
FBP - Fraunhofer Institut für Bauphysik, Holzkirchen (Germany)

- Report P 1977 (16.09.1999)
Polymer Institut GmbH, Flörsheim-Wicker (Germany)
- Report P 2275 (11.08.2000)
Polymer Institut GmbH, Flörsheim-Wicker (Germany)
- Report (06.03.2002)
ServisBact - Bakteriologisch Laboratorium, Rodgau (Germany)

Test reports on request.

General information

For all contracts - whether made verbally or in writing - Sto Ltd general conditions of sale apply.

Validity

This Technical Data Sheet is valid outside Germany, in all countries without Sto subsidiary.

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Table 3: Physical data

	Tested to	Value/Test result	Unit
Density in supplied form	DIN 53 217	1.45 – 1.55	[kg/dm ³]
Non volatile part (solid material)		65	M-[%]
pH-value		9 – 10	[1]
Water vapour diffusion			
Water vapour transmission rate V	BS EN ISO 7783-2	2100	Class I [g/m ² .d]
Equivalent to air layer s _d (thickness = 220 µm)	BS EN ISO 7783-2	0.01	[m]
Water vapour diffusion resistance factor µ	BS EN ISO 7783-2	50	[1]
Water permeability			
Liquid-water transmission rate w	BS EN 1062-3, § 10	< 0.10	Class III [kg/m ² .h ^{0.5}]
Lightness			
	DIN 53 778	96	[%]
Brightness			
	CIE	78	[%]
Degree of gloss			
	BS EN 1062-1, § 5.2	matt	

With the indication of the characteristic values it concerns average values. Due to the use of natural raw materials in our products the actual value can deviate slightly, without impairment of the product suitability.

Sto worldwide:

Austria Sto Ges.m.b.H. 9500 Villach	Belgium Sto nv/sa 1730 Asse	Czech Republic Sto s.r.o. 150 00 Praha	Finland Sto Finexter Oy 33720 Tampere	France Sto S.A.S. 95870 Bezons
Germany Sto AG 79780 Stühlingen	Hungary Sto Építőanyag Kft. 2330 Dunaharaszti	Italy Sto s.r.l. 50053 Empoli (FI)	Netherlands Sto Isoned bv 4004 KD Tiel	Norway Sto Norge A/S 0664 Oslo
Poland Sto-ispo Sp. z o.o. 03-872 Warszawa	Spain Sto Ibérica S.L. 08039 Barcelona	Sweden Sto Scandinavia AB 582 77 Linköping	Switzerland Sto AG 8172 Niederglatt	United Kingdom Sto Ltd. Paisley PA3 3BQ
China Shanghai Sto Ltd. Shanghai 200001	Malaysia Sto SEA Sdn. Bhd. 47100 Puchong, Selangor	Singapore Sto SEA Pte Ltd Singapore 575625	USA Sto Corp. Atlanta, Georgia 30336-5609	