



TECHNICAL DATA SHEET

sto

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StoLotusan Color G

(formerly: Lotusan G)

Facade paint with Lotus-effect.
Dirt is repelled with the rain. Especially for algae sensitive facades.



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).
Fungicidal/biocidal additives (film preservation).

Thinner

Diluting agent: Water.

Uses

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On wall and ceiling surfaces as top coat on:

- 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
- EWIS External Wall Insulation Systems (new and renovation)

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

Especially for algae sensitive 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 AG.

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 G, diluted by approx. 5 - 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.
- Additional film preservation.
- Ideal protection against humidity and dirt, even for highly-stressed weather-exposed facades.
- Very effective on External Wall Insulation Systems.
- Good water vapour diffusion.
- Excellent weather and chalking resistance; UV-resistant.

Top coat

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

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

StoLotusan Color G dries purely physically by water evaporation.

The drying time depends on the temperature and the rel. 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

**Table 1: Substrate preparation**

Before painting with StoLotusan Color G

Substrate	Treatment	Undercoat *)
New mineral plaster	After the plaster has cured and dried <u>prime if necessary</u>	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. The primer must not dry to a glossy finish.

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 %	

measures while handling chemicals are to be considered.

StoSilo large containers (not available in all countries).

Cleaning of tools

Immediately after use with water.

Colour

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

Supply**Product code and name**

03311 StoLotusan Color G

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

Packaging

03311-002 white, pail (PE) 15 ltr

03311-001 white, pail (PE) 10 ltr

03311-005 tinted, pail (PE) 15 ltr

03311-004 tinted, pail (PE) 10 ltr

For overseas:

03311-007 white, exportpail 15 ltr

03311-008 tinted, exportpail 15 ltr

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 G is manufactured with natural bactericides and additional fungicidal and algicidal additives.

Please note that the effects are not guaranteed to last indefinitely. With additional active ingredients containing a sufficient thickness is required. This is reached usually with two layers. Highly alkaline influences reduce the effect of the film preservation.

Storage and transport**Marking**

In accordance with European Union guidelines and national regulations:

VbF:	-
EU/GefStoffV:	-
GGVS/ADR:	-
UN-Nr.:	-
GISBAU-Code:	M-SF01F
VVS-Code:	-
BAGT-Nr.:	619000

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 G 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 official regulations.

Decopaint/VOC directive 2004/042/EC

EU limit value for this product (cat. A/c): 75 g/l (2007) / 40 g/l (2010).

StoLotusan Color white/natural contains max. 7,6 g/l VOC.

StoLotusan Color tinted contains max. 40 g/l VOC.

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 (01.05.1998)
Botanisches Institut,
Bonn (Germany)

- Report FEB-5/1999 (19.07.99)
FBP - Fraunhofer Institut für Bauphysik,
Holzkirchen (Germany)

- Report P 1977-1 (16.09.1999)
Polymer Institut GmbH,
Flörsheim-Wicker (Germany)

- Report P 2371-1 (18.12.2000)
Polymer Institut GmbH,
Flörsheim-Wicker (Germany)

- Report AT008/00 (19.12.2000)
FPL - Forschungsinstitut für Pigmente und Lacke e.V.,
Stuttgart (Germany)

- Report 139/2000 (24.04.2001)
Prüf- und Forschungsinstitut Kalksanstein,
Hannover (Germany)

- Report (14.01.2003)
ServisBact - Bakteriologisch
Laboratorium,
Rodgau (Germany)

- Report P 3193 (16.04.2003)
Polymer Institut GmbH,
Flörsheim-Wicker (Germany)

- Report P 5086-4 (26.11.2007)
Polymer Institut GmbH,
Flörsheim-Wicker (Germany)

Test reports o.ae. on request.

General information

For all contracts - whether made verbally or in writing - Sto AG 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	EN ISO 2811-2	1,45 – 1,55	[kg/dm ³] ⁽¹⁾
Non volatile part (solid material)		65	M-[%]
pH-value		9 - 10	[1]
Water vapour diffusion			
Water vapour transmission rate V	EN ISO 7783-2	2100 ⁽²⁾	[g/(m ² .d)]
Equivalent to air layer thickness s _d (thickness = 220 µm)	EN ISO 7783-2	0,01	[m]
Water vapour diffusion resistance factor µ	EN ISO 7783-2	50	[1]
Water permeability			
Liquid-water transmission rate w	EN 1062-3, § 10	< 0,10 ⁽³⁾	[kg/(m ² .√h)]
CO₂ diffusion			
CO ₂ Diffusionsrate i	EN 1062-6	91	[g/(m ² .d)]
CO ₂ diffusion resistance factor µ	EN 1062-6	9000	[1]
Lightness	DIN 5033-9	96	[%]
Brightness	CIE	78	[%]
Gloss	EN 1062-1, § 5.2	matt	

⁽¹⁾ g/cm³ = kg/dm³ = kg/l

⁽²⁾ class 1 - high

⁽³⁾ class 3 - low

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. 251 70 Dobřejovice (Praha)	Finland Sto Finexter Oy 01730 Vantaa	France Sto S.A.S. 95870 Bezons
Germany Sto AG 79780 Stühlingen	Hungary Sto Építőanyag Kft. 2330 Dunaharaszti	Italy Sto Italia 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	Russia ooo Sto Russia 119180 Moscow	Spain Sto Ibérica S.L. 08302 Mataró (Barcelona)	Sweden Sto Scandinavia AB 582 77 Linköping	Switzerland Sto AG 8172 Niederglatt
United Kingdom Sto Ltd. Glasgow G52 4TG	China Shanghai Sto Ltd. Shanghai 200001	Malaysia Sto SEA Sdn. Bhd. 81750 Masai, Johor	Singapore Sto SEA Pte Ltd Singapore 575625	USA Sto Corp. Atlanta, Georgia 30331