



TECHNICAL DATA SHEET

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sto



Stolit K

Organically bound facade finish plaster according to DIN 18 558,
with stippled texture.

Material description



Type of material

Synthetic resin plaster, cement free, with film preservation. Stippled texture. Various grain sizes. Ready for use.

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

Binder

Acrylate mixed polymer dispersion.

Fillers

Mineral fillers: Marble stones, quartz sand, ground quartz.

Additives

Film forming agents, anti-foaming agents, thickeners, preservatives. White and coloured inorganic pigments.

Thinner

Diluting agent: Water

Uses

Uses

On wall and ceiling surfaces, as top coat on:

- Sto External Wall Insulation Systems (EWIS):
- StoTherm Classic
- Rainscreen ventilated facade system:
- StoVentec Facade (Verotec Futur Facade)
- EWIS renovation system:
- StoReno Facade
- Sto Anti-Crack System
- all load-bearing mineral and organic substrates

Areas of use

For exterior use.

Restrictions

- Do not apply on damp substrates.
- Not for horizontal surfaces.
- Only apply in thin coats.

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 renders, paint and plaster coatings.

Allow new renders 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)

According to type and condition of substrate (See table 1 for details).

Intermediate coat

Sto Primer (Sto-Putzgrund), diluted by up to 10% with water. When using tinted Stolit K, Sto Primer should be tinted to the same colour as the top coat.

Product characteristics

- High expansion capability; therefore reduced susceptibility to cracking.
- High algae and fungus prevention.
- Highly resistant against driving rain. Highly weather resistant.
- Can be tinted in a large range of colours. High colour stability.
- Very good application properties.

Table 1: Substrate preparation and intermediate coats

Substrate		Treatment	Undercoat (*)	Intermediate coat (*)
Paint	Dispersion paint	Clean and prime	StoPlex W	Sto Primer
	Silicon resin paint	Clean and prime	StoPlex W	
	Silicate paint	Clean and prime	StoPlex W	
	Paint, chalking	Brush, clean and prim	StoPlex W	
	Paint, peeling	Remove with Sto Coating Stripper (= Sto-Fassaden-abbeizer). Steam clean and prime.	StoPlex W	
Plaster, render	Acrylic based plaster (synthetic resin plaster)	Clean, prime and level	Stoplex W	Sto Primer
	Mineral plaster	Clean and prime	StoPrim Micro or Stoplex W	
	Plaster, chalking	Clean and prime	StoPrim Micro or Stoplex W	
	Plaster, absorbent	Clean and prime	StoPrim Micro or Stoplex W	
	Plaster, sanding surface	Clean and prime	StoPrim Grundex	
	Unevenness > 1 cm/m	Levelling plaster with lime cement mortar (drying time min. 14 days)	StoPrim Micro or Stoplex W	
EWIS	External Wall Insulation Systems	1)	-	Sto Primer
Other	Concrete	Clean and prime 2)		Sto Primer
	Cement-bound wood particle board	Clean and prime 3)		
	Wood particle board V100G	Clean and prime 3)		

*) Primers should always be diluted appropriately for the substrate. The primer must not dry to a glossy finish.

1) See brochure "Sto External Wall Insulation Systems" and ask for technical advice

2) See brochure "Sto Decorative Plasters" and ask for technical advice

3) Ask for technical advice

Top coat

Stolit K, diluted with clean water to achieve best working consistency.

Material preparation

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

If necessary, dilute the material slightly with clean water to achieve best working consistency.

Application time (open time) is almost unlimited. Opened containers can be reopened and used again after several months.

Manual application

Stolit K is applied using a stainless steel trowel to the thickness of the largest grain size.

A hard plastic trowel should be used to texture Stolit K. Stolit K with a grain size of 3.0 mm or greater can also be textured using a wooden float.

Depending on application conditions, other suitable tools may also be used for texturing.

Machine application

Suitable for spray application: Stolit K can be spray applied using the Sto Funnel Spray Gun (Sto-Trichter-Spritzpistole, art.-no. 8367-005), Inotec Inomat M8 and Inotec Spray Gun or any other fine plaster spray machine.

Adjust the amount of added water according to the appropriate machine/pump type.

The application technique and tools, as well as the substrate will have a considerable influence on the look of the finish

Drying time

Stolit K dries purely physically by water evaporation.

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

At 20 °C and 65 % relative humidity the product will be touch dry in 6 hrs. and can be overcoated after approx. 24 hrs. The product will be completely dry after approx. 14 days.

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

In unfavourable weather conditions, e.g. high relative humidity and low temperatures, use Stolit QS K (quick setting).

Consumption

Grain 1,0 mm: approx. 1,8 kg/m²
 Grain 1,5 mm: approx. 2,3 kg/m²
 Grain 2,0 mm: approx. 3,0 kg/m²
 Grain 3,0 mm: approx. 4,3 kg/m²
 Grain 6,0 mm: approx. 6,0 kg/m²

The mentioned consumption figures serve only as an approximate guide. More precise

figures can only be determined on site, since project-specific factors may affect consumption.

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. Set material can only be removed mechanically.

Maintenance

Facade cleaning

Stolit K can be cleaned with water using a normal household detergent. If a steam jet machine is used, the following values should be observed:

- Water pressure: 30 - 40 bar.
 - Water temperature: up to max. 30 °C.
 - Nozzle distance: 30 - 50 cm.
- Trial area recommended.

Facade refurbishment

Stolit K can be overcoated with all Sto dispersion and silicone resin paints.

Delivery

Product code and name

Stolit K (stippled texture):
Stolit K white
 0130 Grain 1,0 mm
 0131 Grain 1,5 mm
 0132 Grain 2,0 mm
 0134 Grain 3,0 mm
 0135 Grain 6,0 mm

Stolit K tinted

3130 Grain 1,0 mm
 3131 Grain 1,5 mm
 3132 Grain 2,0 mm
 3134 Grain 3,0 mm
 3135 Grain 6,0 mm

Also available:

Stolit R (rilled texture)
 Stolit MP (free style texture)

Quick setting products:

Stolit QS K
 Stolit QS R
 Stolit QS MP

Packaging

Pail (PE), 25 kg.
 Exportpail, 25 kg.
 StoSilo large containers (not available in all countries).

Colours

Available in white and tinted to the colours of the StoColor System. Refer to the colour card for surcharges.

Can be tinted with StoColor Tint or up to 1 % with StoTint Aqua.

As top coat on StoTherm Classic the colour light reference value may not fall below the value of 20 %. (No dark colours allowed.)

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 by it.

Algae and fungus prevention

Stolit is manufactured with additional bactericidal, fungicidal and algicidal additives.

Please note that while this will prolong the prevention of algae and fungus growth, 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-DF02F
VVS-Code: 1610
BAGT-Nr.: 619000

Storage

Keep containers tightly closed and store in frost free conditions. Keep out of direct sunlight at temperatures above + 35 °C.

Storage life

In unopened original containers (pails), product can be stored for a minimum of 18 months; in StoSilo large containers, at least 9 months. (Relevant data: refer to packaging).

Transport

No special protective measures or hazardous goods markings are necessary.

Environment and health

Health

Application of Stolit K 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: absorb 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.

Dried or set material can be disposed of with normal building site rubbish. 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 for professional users. (Relevant data).

Table 2: General approvals for use as a construction material in Germany (selection)

System *)	Approval DIBt
1. StoTherm Classic External Wall Insulation System (EWIS). <i>Insulation with EPS board, finish with organic top coat</i>	
Fixing system: Adhesive, Top coat with e.g. Stolit K/R/MP	Z-33.41-116
Fixing system: Adhesive and dowels, Top coat with e.g. Stolit K/R/MP	Z-33.43-61
Fixing system: Mechanical fastenings, Top coat with e.g. Stolit K/R/MP	Z-33.42-129
2. StoVentec Facade (Verotec Futur Facade) Rainscreen ventilated facade system. <i>Finish with organic top coat.</i>	
Fixing system: Mechanical fastenings, Top coat with e.g. Stolit K/R/MP	Z-33.2-394
3. StoReno Facade EWIS renovation system. <i>Finish with organic top coat.</i>	
Fixing system: Adhesive and dowels, Top coat with e.g. Stolit K/R/MP	Z-33.2-124

*) Without grain 6,0 mm.

Detailed system: See approval

DIBt = Deutsches Institut für Bautechnik in Berlin
Supervision: FMPA-Forschungs- und Materialprüfungsanstalt Baden-Württemberg in Stuttgart

Physical data

Fire behaviour

Heavy inflammable B1 according to DIN 4102.

Stolit K's fire behaviour was tested as a part of the StoTherm External Wall Insulation Systems (EWIS).

Physical data

See table 3.

Certificates and test reports

- FMPA-Forschungs- und Materialprüfungsanstalt Baden-Württemberg in Stuttgart. P-BWU03 -I-16.5.151: General approval: fire behavior classification. (01.10.2002).
- General approvals for use as a construction material in Germany (Selection): See table 2.

Approvals, certificates, 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.

Sto AG

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Table 3: Physical data

	Tested to	Value/Test result	Unit
Density			
in supplied form (wet material in container)	DIN 53 217	1,70 - 1,90	[kg/dm ³]
when hardened	DIN 18 555-3		[kg/dm ³]
pH-value		8,5 - 9,5	[1]
Fire behaviour			
Fire protection class	DIN 4102	B1 Heavy inflammable	
Thermal conduction			
Thermal conductivity λ (calculation value)	DIN 4108	0,70	[W/m.K]
Water vapour diffusion			
Water vapour diffusion flow density V	DIN EN ISO 7783-2	35 - 70	[g/m ² .d]
Equivalent to air layer s_d (thickness = 3 mm)	DIN EN ISO 7783-2	0,30 - 0,60 Class II	[m]
Water vapour diffusion resistance factor μ	DIN EN ISO 7783-2	100 - 200	[1]
Water permeability			
Water permeability rate w	DIN EN 1062-3, § 10	0,05 - 0,10 Class III	[kg/m ² .h ^{0,5}]

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 Isoned nv/sa 1730 Asse	Czech Republic Sto s.r.o. 150 00 Praha	Finland Sto Finexter Oy 33720 Tampere	France Sto S.A. 67300 Schiltigheim
Germany Sto AG 79780 Stühlingen	Hungary Sto Építőanyag Kft. 2330 Dunaharaszti	Netherlands Sto Isoned bv 4004 KD Tiel	Norway Sto Norge A/S 0664 Oslo	Poland Sto-ispo Sp. z o.o. 03-872 Warszawa
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	