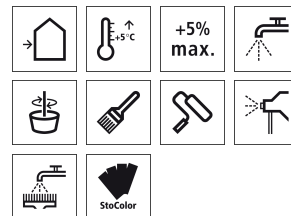


Technical Data Sheet

StoColor X-black

Heat-reflective facade paint based on a pure acrylate base with NIR technology



Characteristics

Application

- Exterior
- for heat-reflective paints on mineral and organic, non-elastic substrates
- for intense colour shade paints
- do not apply to damp or soiled substrates
- not suitable for horizontal or sloping surfaces subject to weathering, except for StoDeco architectural elements

Properties

- reflects near-infrared components of sunlight
- reduces solar heating up of facade surfaces
- increases protection against crack formation in the substrate
- texture-retaining
- Very highly water-repellent
- Water vapour permeable
- alkali-resistant
- Very good adhesion
- Additional film conservation possible
- very good hiding power
- particularly for intense colour shades

Appearance

- matt

Information/notes

- With film conservation to ward off algae and/or fungal attack

Technical data

Criterion	Standard / test regulation	Value/ Unit	Notes
Density	EN ISO 2811	1.4 - 1.5 g/cm ³	
Diffusion-equivalent air layer thickness	EN ISO 7783-2	1.2 m	V2 medium
Water permeability rate w	EN 1062-1	< 0.05 kg/(m ² *h ^{0.5})	W3 low
Water vapour diffusion resistance factor μ	EN ISO 7783-2	6,700	average value
Gloss	EN 1062-1	matt	G3
Dry layer thickness	EN 1062-1	180 μ m	E3 > 100; \leq 200
Grain size	EN 1062-1	< 100 μ m	S1 fine

Technical Data Sheet

StoColor X-black

The characteristic values stated are average values or approx. values. We use natural raw materials in our products, which means that the stated values can vary slightly in the same delivery batch; this does not affect the suitability of the product for its intended purpose.

Substrate

Requirements The substrate must be firm, dry, clean, and load-bearing, as well as free from sinter layers, efflorescence and release agents. Damp or not fully cured substrates can lead to defects in subsequent coats, such as blistering or cracks.

Preparations Check existing coatings for their load-bearing capacity. Remove any non load-bearing or structurally weak coatings.

Application

Application temperature Lowest temperature of substrate/air: +5°C
Highest temperature of substrate/air: +30°C

Material preparation

Intermediate coating diluted with max. 5% water.
Top coat diluted with max. 5% water.
Do not mix with other products.

Use as little water as possible to achieve application consistency. Stir well before application. For machine application the amount of water added depends on the requirement of the respective machine/pump. As a rule, strong colour shades need less water to achieve the optimum application consistency. Too much thinning of the material will make application more difficult and will result in poorer characteristics (e.g. hiding power, colour shade).

Consumption

Type of application	Approx. consumption	
per paint coat	0.15 - 0.18	l/m ²
for 2 application cycles	0.30 - 0.36	l/m ²

The consumption of the material depends on the application method, substrate and consistency, amongst other factors. The stated consumption rate is only to be used as a guide. Where required, precise consumption values should be established on the respective project.

Coating procedure

Substrate coating:
Depends on the type and condition of the substrate.

Intermediate coating:
StoColor X-black

Top coat:
StoColor X-black

Depending on the colour shade selection and type of substrate, further coatings may be necessary.

Application

Painting, Rollers, By airless spray-gun

Technical Data Sheet

StoColor X-black

Drying, curing, reworking time When there is high humidity and/or low temperatures, the drying process will be delayed accordingly.

During unfavourable weather conditions it is imperative that suitable protective measures (e.g. protection against rain) be applied to the work in progress and freshly completed facades.

Successive coats may be applied after 8 hours when the air and foundation/base temperature is of about +20°C and the humidity level is of 65%.

Cleaning the tools Clean tools with water immediately after use.

Delivery

Colour shade Tintable in accordance with the StoColor System

The special formulation with NIR technology can lead to slight differences in colour tone compared to standard tinting. Material from one batch number should generally be used for connecting or immediately adjacent surfaces.

Colour stability:

The effects of the weather, humidity, UV irradiation and deposits can lead to changes in the coating surface over time. This can result in colour changes. This is a dynamic process which varies according to climate conditions and the degree of exposure. The respective current national regulations, data sheets, etc. apply.

Filler break:

When coated surfaces are exposed to mechanical stress it is possible that, due to the natural calibration grains used for darker, more intense colour shades, the areas of impact change to a lighter colour. This does not affect the quality and functionality of the product.

Colour accuracy:

It is not possible to give any warranty for uniform colour accuracy and freedom from stains due to chemical and/or physical curing processes and fluctuations in the weather and different substrate conditions, especially in the case of: a) uneven absorption behaviour of the substrate b) different substrate moistures over the entire the surface c) partially very different alkalinity/substances from the substrate d) direct solar radiation with sharply delineated shadowing on the freshly applied coating.

Emulsifier washouts:

Due to conditions which delay drying, surface effects (streaking) can occur on coatings which are not yet fully-dried during initial stages of weathering caused by dew, mist, water spray or rain because of water-soluble additives. Depending on the colour intensity, this effect can occur to varying degrees. This does not constitute an impairment of product quality. These effects are normally removed automatically on further weathering.

Tintable Not for tinting on site.



Technical Data Sheet

StoColor X-black

Special options possible	The product is equipped at the factory with adapted film conservation against algae and/or fungal attack, it is possible to add agents. A preventive and delaying effect is achieved. However, it is not possible to guarantee that there will be no algae and/or fungal attack in the long term.
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Packaging	Pail
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Storage

Storage conditions	Store tightly sealed in frost-free conditions. Protect against heat and direct sunlight.
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Storage life	The quality of the original package is guaranteed until stock by date. The stock by date can be deduced from the batch number of the package. Batch number explanation: Number 1 = the last number of year, numbers 2 + 3 = a week I.e.: 1450013223 – stock date until the 45th week of the year 2011
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Certificates / approvals

Identification

Product group	Facade paint
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Composition	In accordance with VdL (German Paint and Printing Ink Association) guideline: Construction coating materials for buildings, Polymer dispersion, Titanium dioxide, Calcium carbonate, Silicate fillers, Talcum, Water, Glycol ether, Additive, Preservative
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Security	This product is a hazardous material. Please observe safety data sheet
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Special information

The information or data serves to ensure the product's intended purpose or its suitability for use. and is based on our findings and experience. Nevertheless, users are responsible for establishing the suitability of the product for its intended use. Applications other than those explicitly mentioned in this technical data sheet are only permissible after prior consultation with Sto AG. Where no approval is given, such applications are at the risk of the user. This applies in particular when the product is used in combination with other products. 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 at www.sto.com.

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