

StrataShield Catalyst

Curing additive for StrataShield PU waterproofing systems

Product overview

StrataShield Catalyst is an additive used to speed up the curing process of StrataShield PU waterproofing systems where project constraints, low temperature or air humidity are a factor.

StrataShield Catalyst dramatically reduces the curing time without any impact on the physical properties. It allows the main waterproofing product to obtain a surface skin in a reduced time, minimising the risk of subsequent damage by rain, slopes, etc. and enabling it to be put into service after just a few hours, with less residual tacking effect.

Technical characteristics: pre-application

Properties	Unit / Description
Chemical description	Catalyst solution in organic solvent
Physical state	Liquid
Packaging	Metal container: 1.5 kg
Non-volatile content	43%
Flash point (ASTM D 93)	26°C
Colour	Clear yellow. Colour is unstable under sunlight. This discolouration also occurs in the treated StrataShield Flex membrane (grey turns to green), although mechanical properties are not affected.
Density (20°C)	0.99 g/cm ³
Viscosity (20°C, 100 Rpm)	5 mPa.s
VOC content	572 g/l / 57%
VOC class as per 2004/42/EC	Product subclass: i II Solvent based single-component performance products Limit from 01/01/2010: 500 g/l
Storage	Keep at a temperature below 35°C, away from ignition sources and moisture
Use before	Up to 12 months after date of manufacture

Recommended environmental conditions

The addition of StrataShield Catalyst reduces the effect of air moisture in the StrataShield Flex system's curing process. Nevertheless, it is recommended to follow the general guidelines of StrataShield Flex, paying attention to the limitations of temperature and air humidity.

Preparation

No preparation necessary.

Mixing ratio

StrataShield Catalyst is delivered in pre-dosed 1.5 kg containers, ready for use in a 25 kg StrataShield Flex container.

This is equivalent, as a general rule to:

By weight: StrataShield Flex: 100 / StrataShield Catalyst: 6

By volume: StrataShield Flex: 100 / StrataShield Catalyst: 8

Do not use an excess of StrataShield Catalyst, as this can give rise to a loss of membrane properties.

Mixture properties

The addition of StrataShield Catalyst lowers the viscosity of the StrataShield Flex membrane. Depending on the temperature and initial StrataShield Flex viscosity values, viscosity drop may be up to 50%. Please bear this in mind when considering application quantities.

Mixing and application

Pour the StrataShield Catalyst gently into the StrataShield Flex resin and mix with a low-speed stirrer before use. Wait several minutes before applying the mixed product according to the general guidelines for the StrataShield Flex resin system.

Please note that the addition of StrataShield Catalyst has an effect on the viscosity and solids content of the StrataShield Flex resin. Please take this into account when calculating the amount and thickness of resin required if a minimum final coat of 1.5-2.0 mm is to be obtained.

Ensure that the entire mixed batch is used during the same application.

Curing time

Curing time will be dependent on particular environmental conditions. The curing rate will increase with higher temperatures and higher levels of humidity. The following table gives a rough estimation of the curing time under various conditions for a 1 mm coat.

Environmental conditions	Dry to touch
4°C, 60% RH	30-35 hours
24°C, 52% RH	8-9 hours
35°C, 12% RH	15-20 hours
35°C, 50% RH	4 hours

Pot Life

Addition of StrataShield Catalyst reduces the normal pot life of the StrataShield Flex polyurethane resin. The following pot life data is approximate.

Temperature	Pot life
5°C	180 mins
24°C	60 mins
35°C	30 mins

Health and safety

StrataShield Catalyst contains flammable solvents. Always follow the instructions provided in the material safety data sheet and take the precautions described there. As a general rule, suitable ventilation must be ensured during application and all ignition sources must be avoided. This product is intended for professional use only and should only be used in the way described on this datasheet.

Environmental considerations

Empty containers must be handled taking the same precautions as if they were full. Containers must be considered as hazardous waste, to be transferred to an authorized waste manager. If any residual product remains in the containers, do not mix it with other substances without checking for possible dangerous reactions.

Frequently asked questions

Question	Answer
What if a different mixing ratio is used?	If less StrataShield Catalyst is used than needed, curing time may be longer, but no damage is expected. Using more StrataShield Catalyst than needed does not reduce drying time, and may damage final membrane properties.
What happens in the case of rain?	Early rain-resistant, skin development takes place much faster than when StrataShield Flex is used on its own. The use of StrataShield Catalyst can therefore be highly beneficial where there is a risk of rain.
Can StrataShield Catalyst be used for other moisture-cured polyurethanes?	The formulation is not designed for use with other products. Please consult Technical Services for further details.

Further information

The information contained in this datasheet, along with any advice provided (either written or verbal) through testing are based on our experience and do not constitute any product guarantee for the installer.

We recommend that all of the information provided is carefully studied before proceeding with application, and strongly advise that suitable tests are carried out onsite before application in order to determine the suitability and compatibility for the specific project.

The application, use and processing of our products are beyond our control, and therefore under the exclusive responsibility of the installer. As a result, the installer will be solely responsible for any damage derived from the partial or complete disregard of our guidance or the general mis-use of any of our materials.