

Technical Data Sheet

Silsan[®] SR H10

Silicone Impregnating Agent with Colour Intensivation

Product description

Silsan[®] SR H10 is a solvent based mixture of modified silanes and silicone resins. It is designed for the industrial production of single component, solvent diluted impregnating agent and priming coats which have a long shelf life and are to be distributed to the end user in this diluted form.

Silsan[®] SR H10 allows long lasting, effective impregnation of mineral and alkaline building materials. In addition to the water repellent effect, Silsan[®] SR H10 provides oleophobic (oil repellent) properties to the treated substrate. Furthermore, Silsan[®] SR H10 is characterized by an extreme colour intensifying effect on the surface of high-quality stone material. Depending on the material and surface properties, the natural surface colouring is emphasized.

Silsan[®] SR H10 provides excellent penetration properties even on slightly damp construction materials. A silicone resin film is formed inside the pores of the construction material, which prevents the intrusion of water and therefore reduces soilability, without negatively affecting the water vapour permeability (sd-value).

Damage caused by the intrusion of water, such as exudation marks and frost damage, attack of algae, moss etc., will be effectively avoided by the use of Silsan[®] SR H10.

Silsan[®] SR H10 is suitable to be used with, among others, the following materials:

- brickwork
- roof tiles
- natural stone
- surfaces made of concrete or plaster
- stoneware

Application

For the water repellent impregnation of construction materials, depending on the field of application, Silsan[®] SR H10 is either used undiluted or diluted with de-aromatized, aliphatic organic solvents (e.g. White Spirit Shellsol D 40, Shellsol D 25 or Isoparaffines) at a ratio of up to 1:5.

The dilution ratio directly influences the colour intensifying effect where the strongest effect is obtained when the product is used undiluted. Furthermore, the colour intensifying effect highly depends on the type of stone material. As a rule of thumb dark stone surfaces will exhibit stronger colour intensivation than light materials.

The ready-to-use solution can be applied by painting or by flooding.

Depending on the surface properties of the material to be impregnated, the recommended product application quantity ranges from 200 to 400 g/m². It is vitally important that the product is evenly distributed during application.

Rub in excess product shortly after its application by using a tissue that is free of dust and lint and allow to let absorb the product for about 15 to 30 minutes.

Remove product in excess that did not penetrate before getting hard. Otherwise sticky deposits and streaks may remain on the surface.

Repeat application after 24 hours according to the absorbency of the material surface.

The water and oil repellent effect develops within 12 to 24 hours after application depending on the alkaline character of the substrate, the environmental humidity and temperature.

Manufacturing Process

In case of the product is used in a diluted form, the ready-to-use solution is manufactured as follows:

- 1.) Pour the solvent (White Spirit Shellsol D 40 / Shellsol D 25 or Isoparaffines) into the container.
- 2.) Add Silsan® SR H10 at the required dilution ratio (up to 1:5).
- 3.) Stir well and fill the mixture into suitable containers.

Important note:

It is vital that no water is added to the solution. Even small quantities of water will cause a polymerization of the product, which will then render the product unusable.

Due to the easily flammable nature of the solvents used in the manufacturing process, appropriate safety precautions must be taken. (EX-protected production equipment etc.)

The readily manufactured solution can be poured into smaller, air-sealed containers and can be stored for approx. 9 months, provided they are properly protected from water entry.

As the readily manufactured solution is a hazardous good which contains solvents, the packages must be labeled and marked

according to the precautionary measures required while handling the product.

Precautions:

For further information regarding the personal protective equipment (PPE) that must be worn during manufacturing of the dilution and during the application as well as safety precautions that must be arranged during transport and storage of the product please refer to the latest material safety data sheet.

Storage stability

The packages must not be exposed to direct sunlight or frost.

The packages must be protected from the intrusion of water and air.

We recommend a storage temperature within a range of + 5 to + 25 °C.

In originally sealed containers, Silsan® SR H10 may be stored for at least 9 months after the date of delivery.

For the readily manufactured solution we recommend you do not exceed a storage time of 9 months, under the same conditions.

Even after shelf life has expired, the product isn't necessarily unfit for use. However, in such case, we highly recommend to inspect the product regarding its suitability before using it.

ATTENTION:

It is absolutely vital that during storage of the ready-to-use solution, no moisture, neither in liquid form nor in form of air humidity can intrude the containers as this would lead to an immediate polymerisation and hardening of the product.

In this case the solution would become unfit for use.

However, a slight formation of sediments during storage time is normal and does not affect the product's suitability. Stirring the product is not necessary in this case.

Product properties of Silsan® SR H10

Properties	Value
Composition	solvent based mixture of silicone resins and modified siloxanes
Appearance	clear to slightly opaque, yellowish
Active content	approx. 60 %
Type of solvent	hydrotreated light naphtha
Solubility	soluble in solvents such as white spirit and isoparaffines; water insoluble
Flashpoint	> 23 °C
Viscosity (at 20°C)	< 100 cSt
Density (at 20°C)	approx. 0.98 g/ccm
pH value	n.a.
Packaging	plastic canisters 10 kg, 25 kg, 55 kg, metal drums 180 kg
Storage stability (of Silsan® SR H10)	approx. 9 months at + 5 to + 25 °C
Storage stability (of the ready-to-use dilution)	approx. 9 months at + 5 to + 25 °C

Note:

These figures are only intended as a guide and should not be used in preparing specifications.

Special storage and recommendations for use:

- Store the product in a cool, dark place
- When a dipper is used, it must be cleaned thoroughly before immersion.
- Once the containers have been opened, use up the complete contents as quickly as possible.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials in order to provide for local processing conditions over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.