



SCANTIST 3D

General information

Even when using the most modern scanners, it is necessary to use matting agents in many applications in order to achieve good contrast values and thus precise measurement results. precise measurement results:

Transparent parts

Optical metrology is based on the fact that light emitted by the scanner is reflected from the surface of the part to be scanned back into the scanner's sensor. However, in the case of a transparent surface, the light passes through the surface instead of being reflected from it. As a result, the scanner cannot detect the surface structure.

b) Reflective parts

With reflective or specular surfaces, the light beam is reflected back in a focussed rather than diffused manner. diffuse manner. As a result, the scanner is unable to detect the surface.

c) Recesses

If the object to be scanned has pronounced depressions, the scanner receives a reflection from the walls of the depression. This leads to a disturbance of the light pattern, which shows up in the scan as "artefacts" or erroneous data.

d) High quality and accuracy

For the most accurate and high quality measurements, a dental scan spray should be used to eliminate possible interfering factors such as differences in reflectance characteristics, texture and/or colour of the object being scanned. The use of SCANTIST 3D - vanishing creates a matt, white and homogeneous coating that reduces reflections and other inhomogeneities, thus creating excellent scanning conditions.

The matting sprays used in 3D scanning technology for the anti-reflective coating of surfaces can be divided into two product groups:

Semi-permanent pigment spray

- White, non-slip coating remains on the component after scanning
- Necessary cleaning of the scan object or its disposal if cleaning is not possible

Volatilising (sublimating) dental scan spray

- White, non-slip coating evaporates automatically after scanning - no need to clean the component
- Labs, sensors, environments and users are not contaminated by pigments





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1. SCANTIST 3D - vanishing - definition

SCANTIST 3D - vanishing is a self-volatilising dental scan spray developed by scanning experts.

It eliminates basic application problems of 3D measuring technology, especially in sensitive areas (laboratories, production, etc.) and protects the equipment from contamination by deposition of pigments. Time-consuming transports of externally matted measuring objects to the sensor as well as the time-consuming cleaning of the measuring environment and objects after scanning are no longer necessary. With SCANTIST 3D - vanishing you achieve a significant increase in efficiency and productivity in the entire digitisation process.

SCANTIST 3D - vanishing product features:

- Sublimating / vanishing
- Time and cost saving - no post cleaning necessary
- Layer thickness ~2-6 µm
- Contains no pigments - the spray mist does not damage sensitive measuring equipment
- Consistent, homogeneous and homogeneous coating
- Optimised material compatibility
- Perfect scanability

When used properly, SCANTIST 3D - vanishing forms a matt, thin and homogeneous coating on the surface of the scan object.

on the surface of the scan object. It thus provides the ideal conditions for optical detection.

In addition to the active ingredient, SCANTIST 3D - vanishing contains a propellant gas and solvent. The formulation was designed for maximum material compatibility. Independent laboratory tests have shown that SCANTIST 3D - vanishing sublimates completely and leaves no residue. Detailed information can be found in the residue analysis report and the Safety Data Sheet (SDS) (available on request).

2. Areas of application

SCANTIST 3D dental scan sprays facilitate or enable (e.g. for transparent/ shiny components) optical digitisation in modern dental laboratories, etc: Verifikation von 3D gedruckten Bauteilen

- Plastic design
- Digitisation of shiny metallic materials
- Digitisation of semi-transparent objects
- Creation of 0° telescopes
- and much more

3. Material compatibility

SCANTIST 3D - dental scan sprays are optimised for material compatibility, however material compatibility for specific applications cannot be guaranteed.

The specific material compatibility must therefore be checked by the user before use. SCANTIST 3D - vanishing contains solvents. For details, please refer to the Safety Data Sheet (SDS) (available on request).

4. Layer thickness

SCANTIST 3D - vanishing has been optimised for a minimum layer thickness. This is between 2 µm and 6 µm. The experienced user can achieve layer thicknesses of less than 1µm!



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5. Surface structure

SCANTIST 3D - vanishing forms a homogeneous, thin whitish surface on the cleaned object to be measured.

6. Application

SPRAY



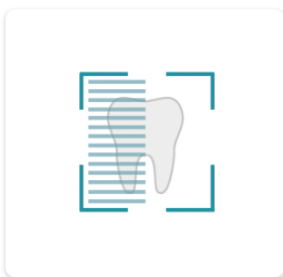
Apply SCANTIST 3D - vanishing from a distance of 5-10 cm. Spray the surface to be scanned.

Operate the spray head and slowly move the spray can back and forth evenly, with the nozzle pointed at the object, to obtain an even coating. SCANTIST 3D - vanishing is applied "wet". The solvent evaporates within a few seconds, while the active ingredient remains as a coating on the surface. The degree of whiteness of the coating increases with

The whiteness of the coating increases as the solvent evaporates.

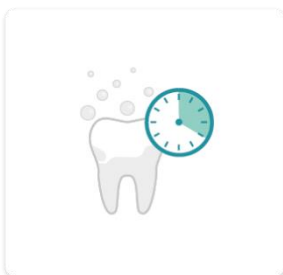
If drops form on the component or the applied matting remains "wet" for longer, increase the spraying distance or increase the spraying speed. The ideal ambient temperature is 21°C/69.8°F.

SCAN



After complete drying of SCANTIST 3D - vanishing, the object can be scanned as usual.

DONE



The applied layer of SCANTIST 3D - vanishing evaporates automatically after scanning. The otherwise time-consuming cleaning after application is no longer necessary.



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7. Evaporation / sublimation

The sublimation time of SCANTIST 3D - vanishing is stated to be less than 1h and depends mainly on five factors:

a) Temperature

- high ambient temperatures shorten the sublimation time
- low ambient temperatures extend the sublimation time

b) Air flow

- Air currents (wind, ventilation) shorten the sublimation time.

c) Surface

- Uneven surface structures prolong, even structures shorten the sublimation time.
- In exposed areas (outer corners), the sublimation time is shortened.

d) Material

- The materials on which SCANTIST 3D - vanishing is applied influence the sublimation time. Plastics shorten, metals extend the sublimation time.

e) Layer thickness

- A higher layer thickness prolongs the sublimation time.

Experience shows that components matted with SCANTIST 3D - vanishing remain completely scannable for about 15-20min. Afterwards, individual contours can be re-sprayed if necessary. By spraying on several layers, the sublimation time can be significantly extended. If you want to accelerate the sublimation, increase the temperature (hair dryer) and/or the air circulation (fan).

8. Residue analysis

SCANTIST 3D - vanishing has been tested by independent experts for possible residues with the following conclusion:

"The detected and quantified sum of all semi-volatile compounds and the identity of the individual compounds is within an expected range. Based on the application of 1 - 2 mg/cm², when applied according to the printed description, approximately 10 ng substance/cm² remains mathematically on the sprayed object. Such a residue is neither visually recognisable nor can it be detected with surface measurement technology. Therefore, the examined scanning spray "SCANTIST 3D - vanishing" can be described as residue-free."

The detailed report is available on request. We would like to point out that the complete sublimation of SCANTIST 3D - vanishing cannot be guaranteed on every surface / material.



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9. Further information

a) Storage

- Optimal storage temperature between 18°C and 21°C (64.4°F and 69.8°F)
- Minimum shelf life: 4 years
- Store in a dry place and avoid direct sunlight

b) Hazard information point

- If you feel unwell after using SCANTIST 3D - vanishing, please contact the
- 24-hour emergency number +49 (0) 761/192 40.
- Never spray on hot or glowing components and ensure adequate ventilation.
- Do not use for products intended to come into contact with food - avoid food contact.
- exclude contact with food. Carefully read the safety instructions in the corresponding safety data sheet (*available on request*).

Further information can be found on our website at <https://SCANTIST3D.com> and in the safety data sheet (*available on request*).

Disclaimer

The information provided has been compiled with great care.

However, we cannot accept any liability for any incorrect or incomplete information.