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PRODUCT INFORMATION

PANASIL®



PRECISION IMPRESSIONS

KETTENBACH DENTAL
Simply intelligent

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KETTENBACH DENTAL – ALWAYS INNOVATIVE



A company is more than the sum of its products, that's for sure. But, in our case, the portfolio clearly indicates Kettenbach Dental's character. Or to put it another way, the ability to create innovations time and again that shape the market as well as everyday life in the dental practice.

With the launch of the world's first impression silicone (**Lastic**®) in 1955 we initiated a chain of innovation. Since then, pioneering innovations have been created consistently. This creativity centers upon the users: dentists and their teams. The goal is smooth processes in the dental practice, the highest quality of workmanship, the economic use of materials and time and, above all, satisfied patients.

You achieve this in the practice, for example, with **Panasil**® – the ingenious precision impression material.

Panasil® is a true classic from Kettenbach Dental and is now celebrating its 40th birthday. The success story of the first-choice silicone began in 1982 and has since grown into a diversified, high-performance product family. On the following pages, we would like to describe this impressive impression story in detail.

Sooo precise, as the material performs.

TOP 100 top100.de Top-Innovator 2020

DA DENTAL ADVISOR 2021 PREFERRED PRODUCT DENTAL ADVISOR PREFERRED PRODUCT VPS IMPRESSION MATERIAL

DA DENTAL ADVISOR 2022 PREFERRED PRODUCT DENTAL ADVISOR PREFERRED PRODUCT VPS IMPRESSION MATERIAL

Made in Germany
Over 75 years of innovation and experience

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THAT'S HOW PRECISION IMPRESSIONS WORK

Everything worth knowing about the material and technology

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SO PRECISE IS PANASIL®

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A PRECISE SUCCESS STORY: 40 YEARS OF **PANASIL**®

This decades-long product evolution in precision impressions is astounding. The range, which has grown to become a large **Panasil**® product family, offers innovative, perfectly coordinated materials **for all impression techniques and indications**.
Panasil® offers an intelligent solution for every user. And the success story goes on.
The latest milestone is the launch of the innovative 50-ml cartridge system.



Panasil® Putty



Monopren®
transfer



Panasil® tray Heavy

1982 1988 1995 1996/2000 2000

Change from tube to 50-mL cartridge



Panasil® contact plus X-Light,
Panasil® contact two in one Light



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PROS APPRECIATE PANASIL®

98 % OF PRODUCT USERS ARE **VERY SATISFIED** OR **SATISFIED** WITH **PANASIL®***



Panasil® initial contact



Monopren® transfer becomes **Panasil®** monophase Medium

To be continued ...

2002 2006 2013 2017 2021 **2022**

Panasil® binetics Putty



Change from foil bags to 380-mL cartridge



Change to the innovative, new 50-mL cartridge



*Result of a survey of 563 product users in Germany, 2021.

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FIRST-CHOICE MATERIALS SCIENCE OF A-SILICONE

In the dental practice, functional or esthetic denture is not possible without a precise impression. So the development of dental prosthetics is closely linked to the search for suitable materials for impressions of the jaw and teeth. As materials advanced, the accuracy of fitting dentures also increased to today's high level. A milestone in development was undoubtedly the launch of elastomeric materials, based on A-silicone.

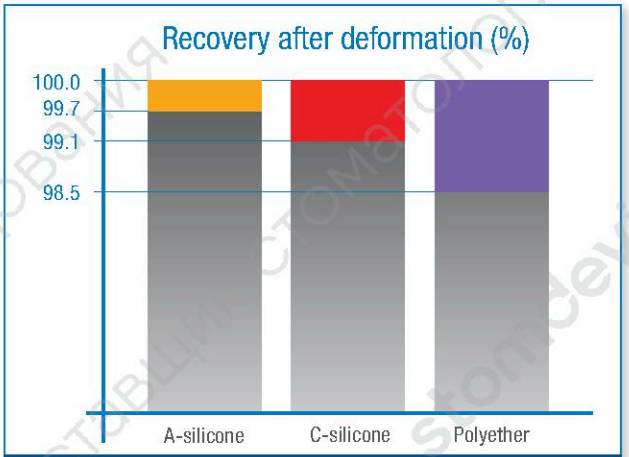
First-choice A-silicones like Panasil® meet these requirements:

Storage/Dimensional stability

Not only must the shape of the impression be accurate, but also **its stability during storage** must be guaranteed. The impression must not change during the delay between taking the impression in the dental practice and model fabrication in the lab. Not all materials succeed in this.

Elasticity/Recovery

Elastic materials are indispensable for achieving undistorted reproduction of undercut tooth areas. Materials have different recovery properties. Low residual deformation is desirable, i.e., as **complete a recovery** as possible following deformation.



The closer the value is to 100 %, the more the impression is restored to its original shape.



The better the recovery after deformation once the impression is removed from the mouth, the more accurate the reproduction.

Processing

Dosing or mixing errors cannot be excluded when using chemical setting materials. **Ready-made mixing systems** are advantageous here. The setting time specified by the manufacturer must be adapted to the material and the impression taking method and should be adhered to.



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Consistency

Certain impression taking procedures require a very flowable material (for pressureless reproduction of edentulous jaw sections for instance, or used as correction material for two-step impressions). Other procedures require a viscoplastic material, however, (e.g., as a tray material for the preliminary impression with two-step impressions). Impression materials are divided into four viscosity classes according to the DIN EN ISO 4823 standard:

Viscosity classes			
Type 0	**Type 1**	**Type 2**	**Type 3**
kneadable < 35 mm*	heavy-bodied < 35 mm*	medium-bodied 31-41 mm*	light-bodied > 36 mm*

*min./max. diameter of the test disc

Detail reproduction

All impression procedures must achieve good detail reproduction. Rule of thumb: The lower the flowability and the smaller the surface that can be wetted by the impression material, the less detail will be reproduced. As the surfaces in the oral cavity moistened with saliva are difficult to dry, **good detail reproduction of even moist surfaces** is desirable. Impression materials that contain water, such as alginates or hydrocolloids, come out on top here. By adding surfactants, A-silicones also develop excellent hydrophilic properties, like **Panasil**® initial contact.

Disinfection

Impressions also need to be disinfected in dental practice. The method recommended for this is immersion or spray disinfection with a suitable disinfectant. **Impression materials that cannot absorb water** are more suitable for disinfection than those that swell when stored in water.



Biocompatibility

Dental materials must not be toxic to the patient or the processor, either in general or locally. They should also **not trigger allergies.** Not all impression materials are safe from an allergological standpoint. It is essential to check the composition listed in the instructions for use of the impression materials.

Patient-friendliness

Many impression compounds have flavoring substances added to avoid stressing patients with unpleasant tasting or smelling materials. **Neutral materials with no particular odor or taste** are preferable as they do not stimulate salivation.

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PROFILE: TWO FLAGSHIP PRODUCTS FROM THE **PANASIL®** FAMILY

First choice material: Panasil® tray



Panasil® tray is a high viscosity impression material recommended for two-step technique (**Panasil®** tray Fast Heavy) or double-mix technique (**Panasil®** tray Soft Heavy). Both materials stand for excellent pressure build-up. Applied in normal standardized trays, custom-made-trays or multi-trays the material offers precise and predictable impression taking.

Panasil® tray materials are delivered from the 380-ml-jumbo cartridge or the popular 50-ml-cartrige with many special advantages.

Your benefits:



380-ml-cartridge:

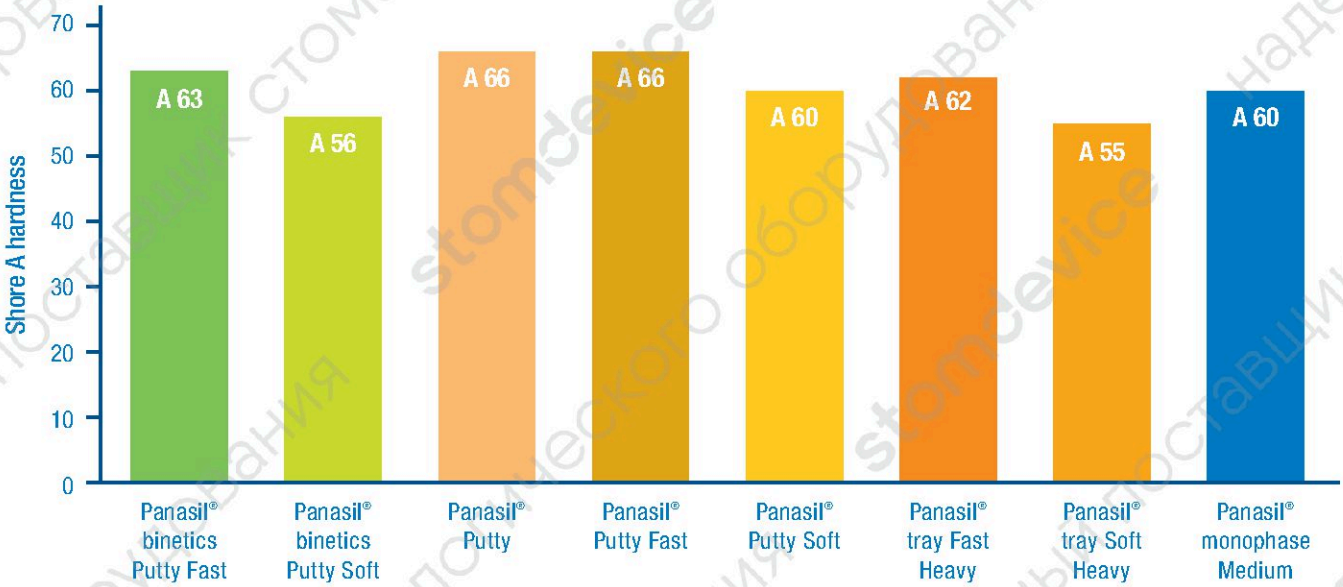
- Homogeneous mixing
- Standardized, exact dosing
- Simple tray filling



50-ml-cartridge:

- No discarding, no waste
- Intuitive simple handling
- Hygienic closure cap that prevents material contamination

Panasil® tray materials – for an intelligent solution every time



Various Shore A hardnesses guarantee a wide range of applications in the dental practice. A tray material with low Shore A hardness is particularly suitable for problem patients with periodontally damaged residual dentition, for example.

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Convincing hydrophilicity: Panasil® initial contact

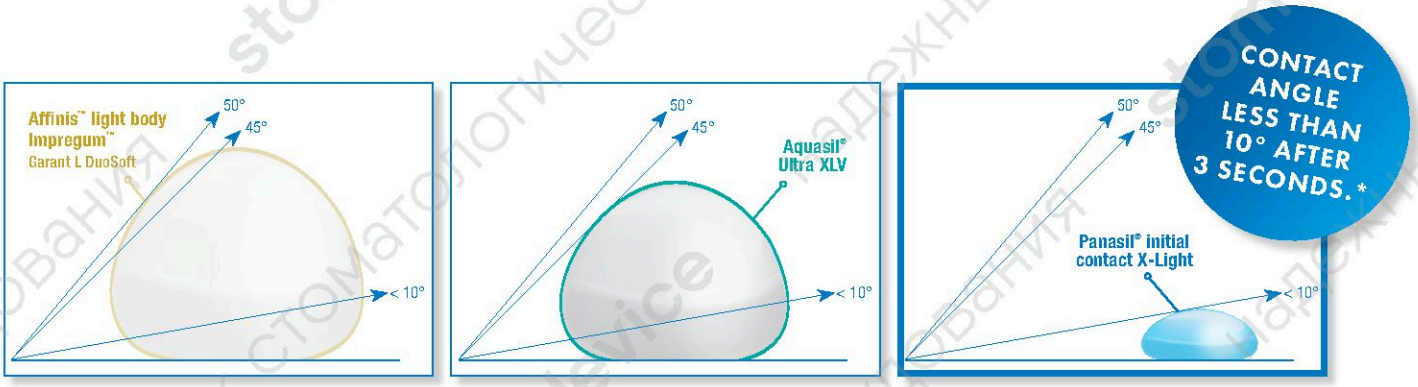
Panasil® initial contact shows very good flowability into the infragingival spaces even with residual moisture. Following normal sulcus preparation, immediate and ongoing wetting of the tooth surfaces occurs because of the hydrophilic properties. The early initial contact with the impression surface and the speed with which the fluid spreads, substantially improves the precision of impression taking. Studies verify that **Panasil**® initial contact distinguishes itself significantly from the competition.

Advantageous for your impression



Excellent flowability and highly thixotropic:

- Flows into narrow gaps and does not drip from the tooth
- Also suitable in extreme situations, as in the case of difficult hemostasis or salivation

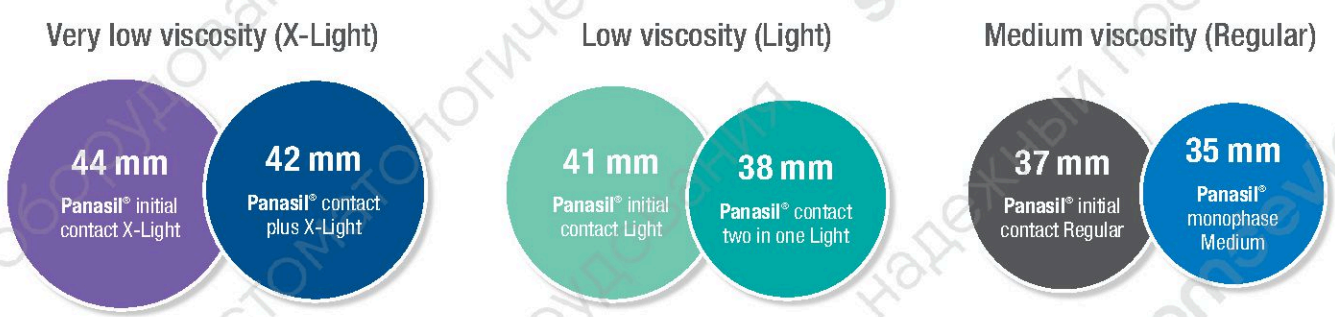


The contact angle is a parameter for the hydrophilicity of a material. The flatter the water droplet spreads out on a material, the smaller the angle, and the more hydrophilic the material.

Panasil® correction materials – the right flow for every case

Three viscosities for every situation:

"mm"-data indicate measured diameter (flowability under pressure) of the test disc (DIN EN ISO 4823).



*Importance of relative humidity for the hydrophilicity of uncured elastomer impression materials.
University Hospital Tübingen, Section of Medical Materials Science and Technology. Authors: Frank Rupp, Ingrid Stephan, Jürgen Geis-Gerstorfer

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COMBINE INDIVIDUALLY AND BENEFIT

Precision without compromises – for every technique and every indication

TWO-STEP IMPRESSION

Panasil® Putty *or* **Panasil®** Putty Fast with **Panasil®** initial contact X-Light *or* **Panasil®** contact plus X-Light



Good value for money

Ingeniously hydrophilic | Fast setting time

Very low viscosity

Panasil® tray Fast Heavy with **Panasil®** initial contact X-Light



Short setting time

Very low viscosity, ingeniously hydrophilic

Panasil® binetics Putty Fast with **Panasil®** initial contact X-Light



Real putty, very easy to trim

Very low viscosity, ingeniously hydrophilic

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ONE STEP IMPRESSIONS

Panasil® tray Soft Heavy with **Panasil®** initial contact Light *or* **Panasil®** contact two in one Light



Pleasantly heavy-bodied



Ingeniously hydrophilic | Fast setting time

Low viscosity



Panasil® binetics Putty Soft *or* **Panasil®** Putty Soft with **Panasil®** initial contact Regular *or* Light



Smooth kneadable, stable



Medium viscosity | Low viscosity

Ingeniously hydrophilic



MONOPHASE IMPRESSION

Panasil® monophase Medium



High final hardness



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TIPS & TRICKS FOR THE PERFECT IMPRESSION WITH **PANASIL®**

Professionals want impressive impression results. They consciously choose the material and technique to this end, and they also adhere to the following rules:



BE CAUTIOUS ABOUT GLOVES

- If gloves are worn when working with the material, they should be tested with a sample of the impression material beforehand to ensure product setting.
- Some types of gloves (e.g., made of latex) can inhibit setting or impair the adhesive bond (e.g., nitrile gloves).
- **Highly recommendation: vinyl gloves**
  Non-compatible gloves: latex and nitrile gloves.



CAUTION WITH THE USE OF MEDICATIONS, RETRACTION AGENTS, MOUTH RINSES

- All A-silicones can react to various local anesthetics, specially impregnated retraction sutures or mouth rinses.
- Compatibility should be checked prior to use. Products that contain active sulfur, aluminum chloride, or nitrogen compounds may impair the setting reaction of the impression material.
- **After using these materials, the area must be thoroughly cleaned to remove all residue.**



AVOID SURFACE INHIBITION

- The oxygen inhibition layer, which may develop after using temporary materials, composites, adhesives, etc., should be completely removed by thorough cleaning and rinsing prior to taking precision impressions.
- **Temporary crowns and bridges should only be fabricated once the impression has been taken.**

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PRODUCT TEMPERATURE AND STORAGE AT THE RIGHT TEMPERATURE

- A product temperature deviating significantly from 23 °C / 73 °F influences the working and setting time.
- The result may be a decrease or increase in setting time.
- **Storage in a dry place, not exposed to sunlight, at room temperature is ideal.**



CHOOSE THE RIGHT TRAY AND TRAY ADHESIVE

- A tray adhesive matched to the material is necessary for all tray types – also for perforated trays. Allow adhesive to dry according to the manufacturer's instructions.
- The impression tray must provide sufficient space for the material. A distance of at least 3 mm is recommended between the tray wall and the row of teeth.
- **To remove the adhesive, clean the tray with orange oil, acetone or alcohol.**



450-ML JARS: CAUTION, RISK OF CONFUSION

- Only use components with the same lot number.
- Contamination of the base paste and catalyst paste in the container will make the material unusable.
- Take out equal volumes of base paste and catalyst paste using the scoop.
- Close the jars carefully after use.
- **Do not mix up the lids of the jars or scoops of the base paste and catalyst paste for manual mixing.**

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TIPS & TRICKS FOR THE PERFECT IMPRESSION WITH **PANASIL®**



50-ML CARTRIDGES: NO DISCARDING AND NO CONTINUOUS EXTRUSION

- The mixing system ensures even delivery at all times. It is neither necessary to discard material nor attain continuous extrusion prior to use.
- **Storage of the 50-ml cartridge with used, disinfected mixing tip or the closure cap.**



380-ML CARTRIDGES: PLAN TO DISCARD MATERIAL

- For discharging the material, it is necessary to attach the dynamic mixer.
- When using the 380-ml cartridge for the first time, discard the first 3 cm of material to ensure homogeneous mixing of base paste and catalyst paste (recognizable by the uniform color of the impression material).
- When using the cartridge in different electrical dispensing devices or when using different products in the same electrical dispensing device, material should be discarded again on use so that homogeneous mixing is guaranteed.
- It is recommended to store the cartridges horizontally if they are not left in the device.
- **If a previously used cartridge is in use, the filled mixer remains on the cartridge as a cap.**



USE OR APPLY MIXING TIPS & INTRAORAL TIPS

- **Always keep the mixing tip immersed in the material during application.**
- Air bubbles in the material are completely prevented if the mixing tip or intraoral tip remains immersed in the material during application.
- It is recommended to first apply the medium/light-bodied material from the mixing tip into the tray and then to attach the intraoral tip for applying material around the preparation.
- Carefully position and place the tray.

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CORRECT TRAY PLACEMENT TO IMPRESSION TAKING

- Ensure a slow, steady, vertical insertion motion to guarantee mixing of the tray and correction materials.
- Do not push through the impression.
- Keep the tray stable in the patient's mouth with light, passive pressure.
- Individualization of a ready-made tray is recommended (set stops).
- **Avoid transferring the tray.**

TIMING IS EVERYTHING: ADHERE TO SETTING TIMES

- The specified working time must be followed.
- The material must not be cured yet, otherwise distortion or edges will result.
- The intraoral setting time also has to be followed. Removal from patient's mouth too early will also result in distorted margins or tearing.
- **Excellent impression results for precisely fitted dentures are achieved by strictly adhering to the working time and intraoral setting time.**



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PANASIL®
IDENTIUM®
FUTAR®
SILGINAT®

KETTENBACH DENTAL
Simply intelligent

VISALYS® CEMCORE
VISALYS® CORE
VISALYS® TEMP

NOTES

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