The swimming pool silicone

Maxisil® P

Technical Data Sheet

Characteristics:

- Neutral-curing 1-component silicone sealant
- Extremely resistant to continuously wet conditions
- Contains extra fungicide
- High resistance to notches, tension and tearing
- Highly resistant to chlorine in the concentration required for swimming pool disinfection
- Non-corrosive
- Excellent adhesion on many substrates, especially in combination with primer, (please see attached table)
- Excellent weathering, ageing and UV-resistance

Applications:

- Sealing of swimming pools, spa baths as well as elastic jointing on edges
- Water Fountains, water features
- High Humidity environments
- Public showers and changing rooms, i.e gymnasiums
- Great for indoor and exterior use
- Not suitable for drinking water applications, please use Maxisil N
- Not suitable for marble or natural stone swimming pools. Please use Maxisil N for stone substrates
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Standards and tests:

- Suitable for applications according to IVD instruction sheet no. 14+17+31+35 (IVD = German industry association sealants)
- French VOC-emission class A+
- Certified according to GOS

Important information:

Before application, the user should ensure the materials in the contact area (solid, liquid and gaseous) are compatible with the sealant and also each other, so as they do not damage or alter (e. g. discolour) each other. If in doubt the user should consult each manufacturer of the surrounding substrates.

During the material curing process, products of the crosslinker are released.
Please ensure good ventilation during application and curing.

Once cured the product is completely odourless, physiologically harmless and unmodified.

The required vulcanization time prolongs with increasing thickness of the silicone layer.
One-component silicones must not be used for full-surface bonding applications, unless special constructional prerequisites are met. If one-component silicones are to be used for thickness layers of more than 15 mm please contact our technical department beforehand.

We recommend washing off the vulcanised sealant with clear water before flooding the swimming pool in order to remove residues of smoothing agent from the surface. Residues of smoothing agent might cause implantation and growth of microorganism and an attack of fungus or mould.

The sealant is heavily equipped with fungicides and resistant to salt water and chlorine in the usual amount used in swimming pool operaration. To minimize an attack of fungus or mould on the sealant, the following indications must be followed: The desinfection of the swimming pool water with chlorine is indispensable. In addition to that, alternative procedures may also be used. In order to prevent an attack of fungus or mould effectively, sufficient chlorine disinfection must be ensured. Alternative procedures such as UV-radiation or ozonization have no disinfecting effect. This is however essential to prevent an attack of fungus.

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Water conditions must be as follows: Swimming pool: **0.3 - 0.6 mg/litre of free chlorine**; warm water whirlpool**: 0.7 - 1.0 mg/litre of free chlorine**; the current status of technique allows an amount **of up to 1.2 mg/litre of free chlorine**. The pH value of pool water is optimal if the value is regulated to 7.0. Deviations up and down between 6.5 and 7.6 are allowed in fresh-water. Please note: A very strong smell of chlorine indicates an incorrect pH value of the swimming pool water. Please check the pH value and regulate it properly.

Regular water circulation is indispensable. It should always be activated and not be interrupted at any time. Due to interruptions, partial variable chlorine concentrations may occur and may partially fall below the minimum concentration of 0.3 mg/litre. Falling below the minimum concentration causes germination of all existing spores and an attack of fungus or mould. To ensure proper water circulation, the pool water should run constantly over the overflow edge of the pool.

For cleaning purposes, the use of neutral or alkaline detergents is preferable, as fungus multiplies quicker in an acidic environment.
Avoid contact with materials which contain bitumen, which release solvents, e. g. butyl, EPDM rubbers, neoprene and bituminous paint.
When restoring joints contaminated with mould, the existing elastic sealant must be removed completely. Before re-jointing, the affected joint areas are to be treated with Maxisil Anti-Mildew Spray to remove existing fungal spores. Otherwise a new mould attack may again occur in the joints, despite the mould protection technology of the sealant.

Technical properties:

Skin-forming time at 23 °C/50 % RAH [minutes]	~ 6
Curing in 24 hours at 23 °C/50 % RAH [mm]	~ 2 – 3
Processing temperature from/to [°C]	+ 5 / + 35
Viscosity at 23 °C	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,0
Shore-A-hardness according to ISO 868	~ 20
Permissible movement capability [%]	25
Stress expansion modulus at 100 % according to ISO 37, S3A [N/mm²]	~ 0,3
Tensile expansion according to ISO 37, S3A [%]	~ 700
Tensile strength according to ISO 37, S3A [N/mm²]	~ 1,4
Temperature resistance from/to [°C]	- 40 / + 180
Shelf life at 23 °C/50 % RAH [months]	12

This data is not suitable for the issue of specifications. Please contact Maxisil before issuing specifications.

Pretreatment:

All adherent surfaces must be clean of any contaminant such as release agents, preserving agents, grease, oil, dust, water, old adhesives or sealants and other substances, which could affect adhesion, should be removed.

Cleaning of non-porous substrates: Apply Maxisil Cleaner (airing time approx. 1 minute) using a clean, lint-free cotton cloth.

Cleaning porous substrates: Clean surfaces with steel-wire brush or a grinding disk to remove loose particles.
The adherent surfaces have to be clean, free from fat, dry and sustainable.

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Primer Table:

The demands on elastic sealants and bonds depend on the respective exterior influences and substrates. Extreme fluctuations of temperature, tensile or shear forces, repeated contact with water etc. demand high bond strengths. In such cases it is advisable to apply primer according to the recommendations of our technical department in order to achieve maximum bond strength.

Acrylic glass/PMMA (Plexiglas®, etc.)	T
Aluminium	1216
Aluminium anodized	1216
Concrete	1105 / 1218
Concrete (permanent water stress)	1218
Chrome	1216
Stainless steel	1216
Ceramic, glazed (permanent water stress)	1218
Ceramic, unglazed (permanent water stress)	1218
Ceramic, glazed	+ / 1215
Ceramics, unglazed	+ / 1215
Natural stone / marble	Maxisil N
Natural stone (marble, granite, etc.) (Permanent water stress)	Maxisil N
Polycarbonate	T
Polyester	1217
PVC-soft-foils	1101 / 1217

+ = good adherence without primer
- = not suitable
T = Test/pilot test advised

Application information:

When using a primer, apply to the substrate and allow to dry for approx 2 hours. Once primer is dry, apply Maxisil P to the substrate. Apply with an even method, avoiding air entrapment. For best results the sealant should be smoothed with a smoothing agent and applicator. For best results use Maxisil Smoothtex A (part number RDX2000) and Maxisil Applicator (part number RDXA3000).

For backfilling of joints please use a closed cell PE foam rod.

Maxisil P curing time depends on the thickness of the sealant layer, ambient temperature and atmospheric humidity. Minimum is 4 days, preferably 2 weeks, before filling the swimming pool with water.

Due to many possible influences during and after application, we recommend to first conduct a trial on the substrate and bonding area.

Please observe the recommended shelf life, printed on the packaging. The date printed is a “best before” indication.

We recommend to store our products unopened and in original packaging, in a dry cool place (< 60 % RAH) at temperatures of +15 °C up to +25 °C. If the products are stored and / or transported at higher temperatures / humidity for long periods (some weeks), shelf life / material performance can be reduced, causing a change in material characteristics.

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Packaging:

	310 ml cartridge
All colours	Maxisil P
Packaging box	**20**
Pieces per pallet	**1200**

Safety precautions: Please observe the material safety data sheet.

Disposal: Please refer to the material safety data sheet.

Warranty information: All information in this publication is based on our current technical knowledge and experience. However, since conditions and methods of use and application of our products are beyond our control, we suggest that you test the product before use. Information given in this technical data sheet and explanations of Maxisil in connection with this technical data sheet (e.g. service description, reference to DIN regulations etc.) is not to be seen as a warranty. Warranties require a separate written declaration of Maxisil to prove their validity. The characteristics stated in this data sheet define the characteristics of the article broadly and concludingly. Suggestions of use are not to be taken as confirmation of the appropriateness for the recommended intended use. We reserve the right to alter the product, adjusting it according to technical progress and new developments. We are at your disposal both for inquiries as well as specific application problems. If a governmental approval or clearance is necessary for the application of our products, the user is responsible for the obtainment of such. Our recommendations do not excuse the user from the obligation to take into consideration the possibility of infringement of third parties' rights and if necessary resolving it. For the rest, our general terms and conditions apply, in particular regarding a possible liability for defects. You can find our general terms and conditions on our homepage; robertsdesigns.com.au

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