



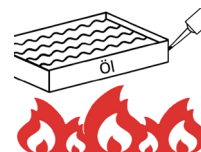
RAMSAUER®

345

LASTING BONDS.

Hitze- und Ölbeständig

1-component neutral silicone sealant



Technical data sheet

Version: 07-2024

Tests:

- Fulfills the French VOC requirement Class A+
- Suitable for use on natural stone
- Electrically conductive

1. Technical data

Basis	Neutral cure oxime silicone sealant
Skin formation time	~ 9 Min. (23°C/50% relative humidity)
Full curing time	~ 2 mm/24 hours (at +23°C/50% relative humidity)
Density	~ 1.07 (EN ISO 1183-1)
Shore A hardness	~ 37 (DIN EN ISO 868)
Electrical conductivity	Conductive in accordance with TRBS 2153 (volume resistance 105 Ω.m)
Volume shrinkage	~ 5.1% (EN ISO 10563)
Tear propagation resistance	~ 6.3 N/mm (ISO 34-1)
Tensile stress at break	~ 0.60 N/mm² (DIN EN ISO 8339)
Resistance to high and low temperatures	Continuous load: -50°C to +250°C; short-term (120min): up to +300°C
Application temperature (substrate, environment)	Lower +5°C, upper +35°C
Colours	Black
Packaging	290 ml cartridge, other containers on request
Shelf life of cartridges and foil bags	6 months in original packaging in cool and dry storage conditions
Shelf life of industrial container	6 months, cool and dry in sealed original container

Naturalstone



2. Properties / application areas

345 Hitze- und Ölbeständig is a permanently elastic, neutral 1-component silicone sealant. After full curing, it is characterised by high oil resistance, short-term temperature resistance up to +300°C and excellent adhesion properties on a wide range of substrates. The sealant has been specially developed for use in equipment, automotive and mechanical engineering industries, as well as in a variety of technical applications and industrial production. In addition, the 345 Hitze- und Ölbeständig can also be used for natural stone applications without any problems. The 345 Hitze- und Ölbeständig is ideal for all applications where electrical conductivity of the sealant is required.

3. Oil resistance

Oil type / manufacturer / designation	Resistance / remark
Standard motor oil / Castrol Edge Professional Longlife III OW-30	Perfectly resistant: no reaction
Hydraulic oil / Fuchs Renolin B 20 (HLP68, DIN51524-2 ISO6743-4:HM)	Perfectly resistant: no reaction
Cooling compressor oil / Shell Refrigeration Oil S4 FR-V 46	Resistant: Swelling when exposed to the test oil, but no loss of adhesion or leak tightness. Material returns to its original state after removal
Cleaning oil / Shell Shellsol D60	Resistant: Swelling when exposed to the test oil, but no loss of adhesion or leak tightness. Material returns to its original state after removal

The tests were carried out in aluminium oil pans manufactured for the test purposes. After storage for 7 days in a standard climate (-23°C / -50%rLf) and subsequent storage at +110°C for 7 days, the test pans and test discs were subjected to a test with the above results.



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345

LASTING BONDS.

Hitze- und Ölbeständig

4. Substrate preparation

The adhesion surfaces must be dry, capable of bearing, and free of dust, oil and grease. Pre-cleaning with 828 Grundreiniger is generally recommended on non-absorbent substrates, but compatibility with sensitive surfaces should be checked in advance to avoid surface damage. If required, carefully pretreat the adhesion surfaces using a suitable primer. Sanding with a fine sanding fleece can further improve adhesion on smooth surfaces. Due to the many different coating systems, an adhesion test is recommended before application to painted surfaces.

Substrate	Pre-treatment
Glass	828 Grundreiniger
Tiles	828 Grundreiniger
Pine wood	Dust free
Wet ground concrete	Dust free
Concrete, formwork smoothness	Dust free
Steel DC 04	828 Grundreiniger
Hot-dip galvanised steel	828 Grundreiniger
Stainless steel	828 Grundreiniger
Zinc	828 Grundreiniger
Aluminium	828 Grundreiniger
Aluminium AlMg1	828 Grundreiniger
Aluminium AlCuMg1	828 Grundreiniger
Aluminium 6016	828 Grundreiniger
Anodised aluminium	828 Grundreiniger
Brass MS 63 Hardness F 37	828 Grundreiniger
PVC Kömadur ES	828 Grundreiniger / Primer 100
PVC soft	828 Grundreiniger / Primer 100
PC Makrolon Makroform 099	828 Grundreiniger
Polystyrene PS Iroplast	828 Grundreiniger / Primer 100
ABS Metzoplast ABS 7 H	828 Grundreiniger / Primer 100
PET	828 Grundreiniger
Copper	828 Grundreiniger
PMMA Röhm sanitary quality	828 Grundreiniger / Primer 100
Natural stone	Dust free
GRP	828 Grundreiniger
EPDM Semperit E 9614	828 Grundreiniger / Primer 100

This table is based on adhesion tests with Rocholl test specimens under laboratory conditions. In practice, the adhesive properties depend on a large number of external influences (weathering, contamination, loads, etc.). Therefore, this table is for guidance only and does not constitute a binding statement. For further information please contact our application engineering department. The tests carried out above only refer to the adhesive properties and have no significance in terms of compatibility with the stated substrates.

***1:** Different PLEXIGLAS® types exhibit certain differences in their chemical resistance. Stresses must be expected in some applications. The resulting stresses, in combination with certain agents, can lead to "stress cracking". The duration, temperature and concentration of the acting substance have a fundamental influence on any "stress cracks". When using our products in combination with PLEXIGLAS®, the suitability must therefore be checked in advance.

***2:** The compatibility with various mirror coatings by different manufacturers is regularly tested in our laboratory. Advance testing is recommended due to production processes of the various manufacturers, into which we have no insights, and as a function of the existing substrate and bonding variants.



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345

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5. Processing

General instructions: The expiry date of the material must be observed, otherwise the properties of the product can no longer be guaranteed. If the products are stored and/or transported over a longer period of time at higher temperatures/humidity, the shelf life may be reduced or the material properties may change. Strong environmental influences (e.g. high temperature, UV exposure, chemical influences such as vapours) can affect the properties of the material to varying degrees. Before applying, the user must ascertain that the building materials (solid, liquid or in gaseous form) are compatible with the sealant in the contact area. Pay attention to the ambient and substrate temperature during application because as excessively high or low temperatures can lead to changes in properties. Due to the large number of possible influences during processing, it is always advisable for the processor to carry out a test processing before use. Good ventilation must be ensured during processing and curing.

Pre-treatment of the adhesion surfaces: The substrate must be pretreated in accordance with the instructions in section 3 of this technical data sheet.

Joint design: For motion compensating joints, the dimensions must be designed to absorb the maximum motion expected. A minimum cross-section of 3x5 mm must be adhered to for the joint. The joint design must comply with the applicable standards and regulations. To avoid 3-edge adhesion, backfill with a suitable material if necessary (preferably Ramsauer 1050 round profile closed-cell)

Application of the sealant: The product must be applied uniformly to the joint avoiding inclusions. If the substrate is pretreated with primer, its flash-off time must be observed. The tooling work must be completed within the stated skin formation time. When reworking, good contact with the adhesive surfaces/joint edges must be ensured (use Ramsauer tooling agent).

After-treatment: When using a tooling agent, apply it fresh, unused and sparingly. Once the joint has been formed, any residue of tooling agent must be removed before it dries, otherwise visual flaws are to be expected.

6. Meets the requirements of IVD instruction sheet

No. 35	Sealing and bonding in construction - Systems - Classification - Application
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7. Maintenance and care

Ramsauer sealants and adhesives are carefully manufactured using state-of-the-art production processes. This results in high-quality products which, when processed appropriately, enable durable and resistant bonding and jointing. However, in order to guarantee the functionality of the joints and bondings, they need to be checked at regular intervals in accordance with the loads they are exposed to (chemical, mechanical, thermal, UV radiation), to clean them and to renew them if necessary (also see information sheet "Care and maintenance of joint seals").

8. Restrictions on use

- Not suitable for contact with petrol and diesel!
- Permanent contact with lubricants or coolants containing oil can cause the compound to swell, but this has no effect on adhesion.
- Not suitable for use with mirrors.
- Avoid contact with tar and bituminous substrates.
- Despite the product's high resistance, it can be affected by strong environmental influences (chemical, mechanical, thermal, UV radiation) both in terms of colour and technical properties.



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9. Safety instructions

Please refer to the current EC safety data sheets. Data sheets are available at any time from our website at www.ramsauer.eu.

10. Liability for defects

The information, in particular the suggestions for the processing and use of our products, is based on our knowledge and experience in normal use cases at the time of printing. Depending on the specific circumstances, in particular with regard to substrates, processing and environmental conditions, the results may differ from this information. Therefore, no guarantee can be provided for the quality of the results achieved, which are influenced by the aforementioned circumstances. No legal claim, in whatever form, can be asserted against Ramsauer GmbH & Co KG based on these reference or from a verbal consultation, unless we are guilty of intent or gross negligence in this respect. Ramsauer GmbH & Co KG guarantees that its products comply with the technical properties specified in the technical data sheets until the expiry date. Product users must consult the latest technical data sheet, which can be requested from us. Our current General Terms and Conditions apply, which you can download at any time from our homepage at www.ramsauer.eu. On publication of a new version/revision of the technical data sheet, all previous versions of the respective product lose their validity.

