

# OTTOSEAL<sup>®</sup> S 70

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## Technical Data Sheet

identical with Novasil<sup>®</sup> S 70

### Characteristics

- Oxime based neutral-curing RTV-1 silicone sealant
- Guaranteed not to cause any migratory staining on natural stone
- Very high crack and notch resistance
- Contains fungicide
- Non-corrosive
- Available in 33 colours ex warehouse
- Also available in "structure" colours with a stone like surface
- UV resistant
- Excellent weathering and ageing resistance

### Fields of application

- Sealing and jointing on marble and all natural stones, for example sandstone, quartzite, granite, gneiss, porphy, etc. in interior and exterior areas
- Especially suitable for flooring applications
- Movement-compensating bonding of natural stone on metal, e.g. stairs on a metal construction
- Suitable for underwater seals in marble / natural stone, swimming pools

### Standards and tests

- Tested according to ASTM C 1248 by DL Laboratories, New York

### Important information

Direct contact between the sealant and the following plasticizer emitting materials should be avoided: butyl rubber, EPDM, neoprene, insulation coatings, bituminous coatings, etc. Apply the sealant in well ventilated rooms, ensure good ventilation during application and vulcanization. Please note that smoke from cigarettes or similar substances present in the surroundings may discolour the sealant.

The required vulcanization time prolongs with increasing thickness of the silicone. One-part silicones must not be used for bonding applications where the silicone is supposed to be spread all over the surface except a special design is provided. If one-part silicones will be used in layers of more than 15 mm please contact our technical department.

Remark on the use of OTTOSEAL<sup>®</sup> S 70 with colour "stainless steel":

Please consider that visible dividing lines could appear if the silicone surface will be smoothed and layers of silicone pushed on top of each other (e.g. in angle areas). These dividing lines can not be removed by smoothing the lines afterwards. This effect is solely for the colour "stainless steel" and is caused by a special colour pigment which is necessary to create a metallic effect. It is a specific characteristic of the colour "stainless steel" and it does not represent a deficiency. In order to avoid such effect, layers of silicone should not be pushed on top of each other.

## Features

**OTTOSEAL® S 70** is a ready-to-use, neutral, one part silicone rubber based on an oxime cross-linking system.

## Technical properties

Viscosity (23 °C):	non-sag, pasty
Density:	approx. 1.01 g/cm <sup>3</sup>
Shore-A hardness (DIN 53505):	approx. 30
Tensile elongation (DIN 53504):	approx. 400 %
Tensile strength (DIN 53504):	approx. 1.4 N/mm <sup>2</sup>
Modulus at 100 % elongation:	approx. 0.5 N/mm <sup>2</sup>
Movement capability:	20 %
Temperature resistance:	- 40 °C up to + 180 °C
Tooling temperature:	+ 5 °C up to + 35 °C
Skin-forming time (23°C, 50 % RH):	approx. 5 min.
Curing in 24 hours (23°C, 50 % RH):	approx. 3 mm
Shelf life:	12 months from the date of manufacture at room temperature

These data are not intended for preparing specifications. Please contact **OTTO-CHEMIE** before writing specifications.

## Primer table

**We found good adhesion even without primer on the following mentioned natural stones / artificial stones:**

Africa Red  
Balmoral  
Baltic Brown  
Bianco Bahia  
Bianco Sardo  
Bianco Silver  
Bianco Tarin Polished  
Bohus Grey  
Granite  
Jura  
Cashmere White  
Labrador Dark  
Multicolor  
Rosa Porrino  
Sarrizio Silver  
Solhofer  
Spluga Verde  
Yuparana  
Azul Atlantico

**OTTO Primer 1216 is recommended on:**

Ararat Rosa Polished  
Calcatta  
Carrara White  
Daino Chiaro  
Daino Suro  
Rosso Verona  
Statuario  
Breccia Aurora  
Botticino

Acrylic bathroom surfaces (bath tubs)	+ / 1101	Melamine formaldehyde resins	+ / 1216
Acrylic glass (Makrolon, Plexiglas, etc.)	R	Natural stone / Marble	+ / 1216
Aluminium	+	Plaster	+ / 1105 / <b>1215</b> <sup>2</sup>
Aluminium, anodised	+	Plastic profiles, e.g. Vinnolit	+ / 1227
Aluminium powder coated, TGIC-free	1101	Polyester	+
Artificial stone / pre-cast stone	+ / 1216	Polypropylene (PP)	T
Brass <sup>1</sup>	+	PVC soft, foils	+
Cellular concrete	1105 / <b>1215</b> <sup>2</sup>	PVC exempt from plasticizer	1227 / <b>1217</b> <sup>2</sup>
Ceramics, glazed	+	Sandstone	1102
Ceramics, unglazed	+	Stainless steel, rust-proof	1216
Chrome	1216	Tinplate	1216
Concrete	1105 / <b>1215</b> <sup>2</sup> / <b>1218</b> <sup>2</sup>	Wood, painted (solvent systems)	+
Copper <sup>1</sup>	+	Wood, painted (aqueous systems)	+
Epoxy resin coating	+ / 1216	Wood, untreated	+ / Rx
Fibre reinforced cement	<b>1215</b> <sup>2</sup>	Wood, varnished (solvent systems)	+
Glass	+	Wood, varnished (aqueous systems)	+
Iron, sand blasted	+	Zinc, galvanised iron	1216
Lead	+		

+ = good adhesion without primer

- = not suitable

R = further inquiry or preliminary tests required

Rx = for heavy water treatment please consult our technical department

1 The reaction of OTTOSEAL® S 70 with on non-ferrous metals, e.g. chopper, brass, etc. is possible. Curing should not take place in confined spaces.

2 OTTO Primer 1215, 1217 and 1218 are subject to the legal obligation to keep records and to report since November 1st, 2005, in accordance to the Prohibited Chemicals Directive (amongst others: prohibition of self-service). Please take notice of the Technical Data Sheets (<http://www.otto-chemie.de/englisch/service/daten/index.htm>).

## Application information

Provide good ventilation during the application and vulcanization of **OTTOSEAL® S 70**. The joint flanks and surfaces must be clean, dry, free from fat and firm. We recommend OTTO Cleaner T to establish clean surfaces.

For natural stones which are subject to permanent wet conditions e.g. in bath rooms and showers we recommend OTTO Primer 1216. Apply OTTO Primer 1216 and allow a drying time of 15 minutes. Most natural stones which are not subject to permanent wet conditions do not have to be primed. But some natural stones require even without wet stress pretreatment with OTTO Primer 1216 in order to achieve optimal adhesion. Sandstone requires a pretreatment with OTTO primer 1102 after cleaning off loose particles by mechanical means, e.g. with a brush.

Carry out trials or contact our technical department when sealing other natural stones.

Please contact our technical department before sealing joints in swimming pools or saunas as well as joints in natural stones which are permanently immersed in water.

Primers must be applied very carefully, because stains/spots might appear if primers are spread or spattered on the surface of some natural stones.

Some natural stones are very sensitive to conventional smoothing liquids such as washing-up liquids – stains/spots are caused very often on the surface of the natural stone. Such smoothing liquids may be used just diluted, each time fresh and unused. Residues must be removed immediately. We recommend not using conventional smoothing liquids but OTTO Marble Silicone Smoothing Agent.

The sealant must not be spread on the surface of the natural stone, because the sealant is difficult to remove once it is in the pores of the natural stone, especially in the pores of unpolished natural stones.

However, because conditions and methods of use of our products are beyond our control, customer tests are required to ensure that our products are safe, effective and fully satisfactory for the intended end use.

Please observe the recommended shelf life that is printed onto the packaging.

## Packaging

Unit	Units per box	Units per pallet
Cartridges 310 ml	20	1200
Alu-foil bag 400 ml	20	900

400 ml alu-foil bags are available with the following colours:

C67 – anthracite, C10 – bahamabeige, C56 – concrete grey, C43 – manhattan, C18 – sanitary grey, C00 – transparent, C01 – white.

Other packaging and colours are available upon request.

## Colours

C990 – adria blue	C44 – fair blue structure	C80 – pearl-grey
C67 – anthracite	C109 – fair-grey structure	C82 – red-beige
C1300 –anthracite, matt-finished	C47 – grey-blue structure	C32 – sand-red structure
C137 – anthracite grey	C41 – grey-red structure	C1110 – sandstone-beige
C1108 – autumn-grey	C08 – jasmin	C18 – sanitary grey
C10 – bahamabeige	C71 – joint-grey	C34 – silver-green structure
C04 – black	C110 – joint-grey structure	C197 – stainless steel
C05 – brown	C38 – light-grey	C26 – sunset
C45 – chinchilla	C43 – manhattan	C111 – thistle-grey structure
C56 – concrete grey	C1282 – manhattan, matt-finished	C00 – transparent
C37 – dark green	C1109 – night-grey	C01 – white

All colours are equipped with fungicide except C04 – black and C05 – brown.

OTTOSEAL® S 70 is also available with a matt-finished surface appearance – please refer to the designation OTTOSEAL® S 70 SP 4558 (please note surcharge for small quantities) OTTOSEAL® S 70 SP 4558 must not be tooled with smoothing liquid in order to create a matt-finished surface appearance.

## Safety precautions

Please refer to the material safety data sheet.

## Disposal

Disposal should be made in accordance with federal, state and local regulations.

## Warranty information

All information in this publication is based on our current technical knowledge and experiences. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Otto-Chemie's products are safe, effective and fully satisfactory for the intended end use. Information given in this technical data sheet and explanations of OTTO-CHEMIE in connection with this technical data sheet (e.g. service description, reference to DIN regulations etc.) include in case of doubt no acceptance of a guarantee. Otto-Chemie's sole warranty is that the product will meet the Otto-Chemie sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. Otto-Chemie specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability, unless Otto-Chemie provides you with a specific, duly signed endorsement of fitness for use. Otto-Chemie disclaims liability for any incidental or consequential damages. Suggestions of use shall not be taken as inducements to infringe any patent. All mentioned document conditions in this technical data sheet lay down the terms of delivery fully and completely. We reserve the right to alter product constants within the scope of technical progress or new developments. We are pleased to be at your disposal for inquiries, also regarding specific application problems. If the application in which the products are used requires governmental approval or clearance, the user is responsible to obtain such approval. 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. In the event of deficiency our terms and conditions are applicable. If our terms and conditions are not with you, we send them to you on request.