# **OTTOSEAL® M 350**

#### SPECIAL

# The hybrid sealant for glazing



1-component hybrid polymer STP sealant

For indoor and outdoor application

M 350

#### **Characteristics**

- > Does not cause corrosion on unprotected metal surfaces
- > Silicone-free
- Can be painted and varnished please observe application instruction in Technical Data Sheet
- Good weathering and ageing resistance

# Fields of application

- > Window pane sealing on wooden windows
- Sealing of joints on windows and doors made of wood, metal and plastic
- > Sealing of pipe and antenna ducts
- > Sealing of joints on façades, metal constructions
- > Sealing of air condition and ventilation systems
- Suitable for glazing systems with putty fronting Va1 in accordance with DIN 18545 / ÖNORM 3724

# Standards and tests

- > Tested according to EN 15651 Part 1: F EXT-INT CC 25
- > Tested according to EN 15651 Part 2: G CC 25 HM
- > Tested fire behaviour in accordance with EN 13501: class E
- According to the requirements of DIN 18545, stress group A and D
- > According to the requirements of ISO 11600 G 25 HM
- Suitable for use in ventilation systems according to VDI 6022 (Ass. Of Germ. Engineers), sheet 1 tested according to DIN EN ISO 846 (by the Institute for Hygiene Berlin, Germany)
- > French VOC-emission class A+
- > Declaration in "baubook" Austria
- Suitable for applications according to IVD instruction sheet no. 9+12+20+24+27+29+31+32+35 (IVD = German industry association sealants)

#### **Technical properties**

Skin-forming time at 23 °C/50 % RH [minutes]	~ 30
Curing in 24 hours at 23 °C/50 % RH [mm]	~ 2
Processing temperature from/to [°C]	+ 5 / + 40
Viscosity at 23 °C	pasty, stable
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,4
Shore-A-hardness according to ISO 868	~ 24
Permissible movement capability [%]	25
01	0.5

Stress expansion modulus at 100 % according to ISO 37, type  $\sim$  0,5 3 [N/mm²]

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Technical datasheet OTTOSEAL® M 350

Tensile expansion according to ISO 37, type 2 [%]	~ 300
Tensile strength according to ISO 37, type 2 [N/mm²]	~ 1,4
Temperature resistance from/to [°C]	- 40 / + 90
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	12 <b>1</b>

<sup>1)</sup> from production

These data are not suitable for the issue of specifications. Please contact OTTO-CHEMIE before issuing specifications.

#### **Pretreatment**

The adhesive surfaces must be cleaned and any contamination such as release agents, preservatives, grease, oil, dust, water, old adhesives/sealants and other substances impairing adhesion must be removed. Cleaning of non-porous substrates: Clean with OTTO Cleaner T (no flash-off time required) and a clean, lint-free cloth. Cleaning porous substrates: Clean surfaces mechanically, e.g. with a steel brush or a grinding disc, to remove loose particles.

#### Primer table

The demands on elastic sealings and bondings depend on the respective exterior influences. Extreme fluctuations in temperature, tensile or shear forces, repeated contact with water etc. demand high requirements of a bonding. In such cases it is advisable to apply primer according to the recommendations of our technical department (e. g. +/OTTO Primer 1216) in order to achieve a resilient bonding.

Acrylic glass/PMMA	+ / 1217
Acrylic bathroom surfaces (e. g. bath tubs)	-
Aluminium	+
Aluminium anodized	+
Aluminium powder-coated	Т
Concrete	1218
Concrete block	-
Lead	Т
Chrome	Т
Stainless steel	+
Iron	Т
Epoxid resin coating	Т
Fibre cement	1215
Glass	+
Wood, painted (solvent systems)	+
Wood, painted (aquaeous systems)	Т
Wood, varnished (solvent systems)	+
Wood, varnished (aquaeous systems)	+
Wood, untreated	+
Ceramic, glazed	+
Ceramics, unglazed	+ / 1215 / 1216
Artificial stone	-
Plastic profiles (unplasticized, e. g. Vinnolit)	+ / 1217 / 1227
Copper	<sub>+</sub> 1
Melamine resin panels	+
Brass	+
Natural stone / marble	-
Polyester	Т
Polypropylene	-
Cellular concrete	Т
Plaster	1218
PVC unplasticized	+ / 1217 / 1227
PVC-soft-foils	-
Tinplate	Т
Zinc, galvanised iron	+

<sup>1)</sup> Not suitable for the sealing of covering plates made of copper.

Technical datasheet OTTOSEAL® M 350

- + = good adherence without primer
- = not suitable

T = Test/pilot test advised

## Important information

Before applying this product the user has to ensure that the materials in the area of contact (solid, liquid and gaseous) are compatible with it and also amongst each other and do not damage or alter (e. g. discolour) each other. As for the materials that will be used at a later stage in the surrounding area of the product the user has to clarify beforehand that the substances of content or evaporations do not lead to an impairment or alteration (e. g. discolouration) of the product. In case of doubt the user should consult the respective manufacturer of the material.

Not suitable for sealing / bonding copper upon impact of UV-radiation and temperature.

Application of solvent-based alkyd resins can result in an increased curing time.

Good resistance to water, fat, lubricant oils as well as to diluted anorganic acids and alkaline solutions.

Temporary resistance to ester, ketone, aromatics and aliphatic solvents is given.

Not resistant to concentrated acids and alkaline solutions nor to halogenated hydrocarbons.

The colours of the sealant may be affected by environmental influences (high temperature, chemicals, vapours, UV-radiation). This does not affect the characteristics of the product.

In indoor areas with little to no UV light, hybrid polymer sealants may discolour over time, especially in light colours. Moreover, aldehydes and similar substances as well as their vapours from cleaning agents and disinfectants, wood materials and other building materials as well as heavy exposure to tobacco smoke can lead to discolourations of sealants.

#### **Application information**

Our product can be overcoated with paint or varnish. The compatibility between the coating and our product has to be checked before the application by the user/processor - possibly under production conditions. Our OTTO application technology will gladly support you non-committally. If, in exceptional cases, after succesful compatibility test our product is coated over the entire surface, this coating must also be able to follow the elastic movement of the sealant. Otherwise crack formations in the coat of paint or optical impairments may occur.

To smooth, apply OTTO smoothing agent spray to the sealant surface as economically as possible and in a targeted manner and only slightly wet the smoothing tools with the OTTO smoothing agent spray. Remove excess immediately.

Due to the many possible influences during and after application, the customer always has to carry out trials first.

Please observe the recommended shelf life which is printed on the packaging.

We recommend to store our products in unopened original packagings dry (< 60 % RH) at temperatures of +15 °C up to +25 °C. If the products are stored and / or transported at higher temperatures / air humidity for longer periods (some weeks), a diminuition of durability or a change of material characteristics may arise.

#### **Packaging**

### **Glossy colors**

	300 ml cartridge
concrete grey	M350-03-C56
white	M350-03-C01
Pieces per packaging unit	12
Pieces per pallet	1152

No special colours possible.

Other units on request

Due to typographical reasons the colours shown below may differ from the original colours of the products.

#### Safety precautions

Please observe the material safety data sheet.

After curing, the product is odourless.

#### **Disposal**

Information about disposal: Please refer to the material safety data sheet.

# Warranty information

The above information and our technical application advice, whether verbal, in writing or by means of tests, are provided to the best of our knowledge, but are non-binding, including with regard to any third-party property rights. The information in this publication does not exempt the processor from carrying out their own tests on our products with regard to their suitability for the intended processes and purposes. The application, use and processing of our products and the products manufactured on

Technical datasheet OTTOSEAL® M 350

the basis of our technical application advice are beyond our control and are therefore the sole responsibility of the processor. If the application for which our products are used is subject to an official authorisation requirement, the user is responsible for obtaining these authorisations. We reserve the right to adapt the product to technical progress and new developments. For the rest, we refer to our General Terms and Conditions, in particular with regard to any liability for defects. You can find our GTC at www.otto-chemie.de.