

OTTOCOLL®

P 83

Technical Datasheet



1-component polyurethane adhesive and sealant

For indoor and outdoor application

Characteristic:

- **Non-corrosive**
No (oxidation) corrosion on unprotected metal surfaces
- **Silicone-free**
- **Compatible with coatings according to DIN 52452**
No interaction with existing and adjacent coatings
- **Can be painted and varnished – please observe application instruction in Technical Data Sheet**
Optical adaptation and protective coating possible
- **Grindable after curing**
Optically flawless joint adaptation
- **Cures practically shrink-free without foaming**
Exact placement of components without fixing possible
- **Elastic and stress-compensating**
Vibration- and motion-compensating adhesive bonding
- **Suitable for use in areas subject to high chemical exposure**
Resistant to salt water, weak acids and alkalis, aqueous cleaning agents
- **Suitable for use in areas subject to high mechanical exposure**
Extremely high resistance to impact load, shock load and peeling load

Fields of application:

- Vibration- and movement-compensating bonding and sealing
- Sealing of air condition and ventilation systems
- For the bodywork and vehicle construction, waggon and container construction, metal construction and apparatus engineering, ship building

Standards and tests:

- Declaration of no objection – tested for use in food-related area (ISEGA Forschungs- und Untersuchungs-Gesellschaft mbH, Aschaffenburg, Germany)
- Suitable for applications according to IVD instruction sheet no. 12+19-1+21+25+30+35 (IVD = German industry association sealants)
- French VOC-emission class A+
- EMICODE® EC 1 Plus - very low emission
- Classification according to building certification systems, see the sustainability data sheet

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.

Paints, lacquers, plastics and any other coatings must be compatible to the adhesive/sealant.

Not or only temporarily resistant to organic solvents and acids, concentrated alkaline solutions and mineral acids, lacquer solvents and paint thinners.

A binding statement concerning resistance can be given only after an application related testing. Curing depends on thickness of layer, temperature and air humidity. At temperatures below + 5 °C curing speed reduces immensely.

In case of UV-radiation stress discolourations may occur.

Not suitable for the bonding of glass, polyethylene (PE), polypropylene (PP), polyamide (PA), polyfluoroethylene (PTFE), bituminous, waxy or oily substrates or similar.

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Technical properties:

Skin-forming time at 23 °C/50 % RH [minutes]	~ 50
Curing in 24 hours at 23 °C/50 % RH [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]	~ 1,3
Shore-A-hardness according to ISO 868	~ 40
Permissible movement capability [%]	20
Stress expansion modulus at 100 % according to ISO 37, S3A [N/mm²]	~ 0,6
Tensile expansion according to ISO 37, S3A [%]	~ 600
Tensile strength according to ISO 37, S3A [N/mm²]	~ 3,0
Retroactivity according to ISO 7389 [%]	> 80
Temperature resistance from/to [°C]	- 40 / + 80
Shelf life at 23 °C/50 % RH for cartridge/foil bag [months]	12

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

Pretreatment:

All adherent surfaces must be clean and 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 OTTO Cleaner T (airing time approx. 1 minute) using a clean, lint-free cotton cloth. Cleaning porous substrates: Clean surfaces with steel-wire brush e. g. or a grinding disk to remove loose particles.

The adherent surfaces have to be clean, free from dust and grease as well as sustainable.

Primer Table:

The requirements for elastic sealing and bonding depend on external influences. Extreme changes in temperature, expansibility and tensile strength, repeated contact with water, etc. demand a lot from a bonding. Therefore the use of mentioned primers is absolutely necessary.

Aluminium	1226
Aluminium anodized	1226
Aluminium powder-coated	1226 / T
Concrete	1225
Stainless steel	1226
Fibre cement	1225
PVC unplasticized	1227
Zinc, galvanised iron	1226

+ = good adherence without primer

- = not suitable

T = Test/pilot test advised

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 successful 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.

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 diminution of durability or a change of material characteristics may arise.

Packaging:

	310 ml aluminium cartridge	580 ml aluminium foil bag
black	P83-20-C04	on request
grey	P83-20-C02	P83-08-C02
white	P83-20-C01	on request
Packaging unit	20	20
Pieces per pallet	1200	600

No special colours possible.

Safety precautions:

Please observe the material safety data sheet.
After curing the product is completely odourless.

Disposal:

Information about 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 final 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.) is not to be seen as a warranty. Warranties require a separate written declaration of OTTO-CHEMIE to prove their validity. The characteristics stated in this data sheet define the characteristics of the article broadly and conclusively. 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: <http://www.otto-chemie.de/en/terms-and-conditions>