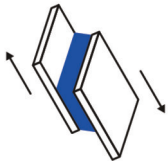
Technical datasheet

OTTOCOLL® P 83 SPECIAL

The highly elastic PU adhesive



1-component adhesive based on polyurethane | For indoor and outdoor application | P 83

Characteristics

- Highly elastic - Compensates for high movements
- Extremely resiliant to mechanical forces - Resistant to high impacts, shock loads and peeling loads
- Good resistance to influence of chemicals - Suitable for use in areas subject to heavy chemical exposure
- Does not foam - No weighting necessary
- Silicone-free

Fields of application

- Bonding in bodywork, wagon and container construction, metal construction and apparatus engineering, shipbuilding
- Bonding and mounting different materials, such as wood, wooden materials, plastics, metals and mineral substrates

Standards and tests

- Meets the requirements for fire behavior according to EN 13501: Class E
- Declaration of no objection – tested for use in food-related area (ISEGA Forschungs- und Untersuchungs-Gesellschaft mbH, Aschaffenburg, Germany)
- EMICODE® EC 1 Plus - very low emission
- French VOC-emission class A+

Technical properties

Skin-forming time at 23 °C/50 % RH [minutes]	~ 50
Curing in 24 hours at 23 °C/50 % RH [mm]	~ 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]	~ 1,4
Shore-A-hardness according to ISO 868	~ 30
Permissible movement capability [%]	25
Stress expansion modulus at 100 % according to ISO 37, type 3 [N/mm²]	~ 0,6
Tensile expansion according to ISO 37, type 3 [%]	~ 800
Tensile strength according to ISO 37, type 3 [N/mm²]	~ 1,8
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 [1]

1) from production

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

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SEALING & BONDING

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.
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 strenght, repeated contact with water, etc. demand a lot from a bonding.Therefor 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

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 immensly.
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.

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.
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

	310 ml aluminium cartridge	580 ml aluminium foil bag
black	P83-20-C04	on request
grey	P83-20-C02	P83-08-C02

	310 ml aluminium cartridge	580 ml aluminium foil bag
white	P83-20-C01	on request
Pieces per packaging unit	**20**	**20**
Pieces per pallet	**1200**	**600**

No special colours possible.
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.

Brand information

EMICODE® is a registered trademark of GEV e. V. (Düsseldorf, Germany)

Warranty information

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