

OTTOCOLL® P 410 SPECIAL

The flowable PU adhesive

1-component polyurethane adhesive flowable	For indoor and outdoor application	P 410
--	------------------------------------	-------

Characteristics

- ▶ Free-flowing
- ▶ High final strength - Resistant to high mechanical stresses
- ▶ Grindable and paintable after curing
- ▶ Foaming / gap bridging - Compensates minor unevenness

Fields of application

- ▶ Bonding sandwich / composite boards, e.g. for partition walls, door parts, exterior walls for prefabricated houses, façade elements, vehicle superstructural parts etc.
- ▶ Bonding of large-surface elements, e. g. for prefabricated houses, caravan and container construction
- ▶ Bonding garden furniture and window edges

Standards and tests

- ▶ Meets the requirements for fire behavior according to EN 13501: Class E
- ▶ According to the requirements of DIN EN 204-D4 to weathering resistant bondings of wood and derived wood products
- ▶ According to the requirements of DIN EN 14257 (WATT 91) to temperature-resistant bondings of wood and derived wood products
- ▶ Conform to LEED® v3 IEQ-credits 4.1 adhesives and sealants
- ▶ French VOC-emission class A+
- ▶ Suitable for applications according to IVD instruction sheet no. 30+35 (IVD = German industry association sealants)

Technical properties

Open time at 23 °C/50 % RH [minutes]	80
Processing temperature from/to [°C]	+ 5 / + 35
Temperature resistance from/to [°C]	- 30 / + 80 ¹
Viscosity at 23 °C [mPas]	~ 7000
Density at 23 °C according to ISO 1183-1 [g/cm³]	~ 1,1
Pressing time at 23 °C [minutes]	~ 240 ²
Pressure, max. [kg/cm²]	8 ³
Coverage of adhesive [g/m²]	~ 150 - 250
Recommended wood humidity [%]	~ 8 - 16
Shelf life at 23 °C/50 % RH [months]	9

1) temporarily + 100 °C

2) Pressing time can be reduced by humidification and increased temperatures.

3) With usual pressing tools and depending on type of application



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.

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

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.

For bondings outside, influenced by humidity and/or UV-radiation we advise the use of our STP or hybrid adhesives. Excepted from this is the weather-stressed bonding of wood and wood materials with subsequent protective paint according to DIN EN 204 D4.

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

In case of full-surface bonding of two large vapour-impermeable substrates (e. g. door sandwich panels, 2x1 m) make sure the emerging CO2 can discharge (e. g. by applying slots) to prevent the formation of bubbles. As an alternative to 1-component polyurethane adhesives the 2-component polyurethane adhesive OTTOCOLL® P 520 can be used, which cures without releasing CO2.

Clean the tools, e.g. spatula, with OTTO Cleaner MP before the adhesive has cured.

The cured adhesive can only be removed mechanically.

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

In case of UV-radiation stress discolourations may occur.

Application information

Cures by reaction with humidity. During curing, a small amount of CO2 is released. This results in an increase of volume of the adhesive.

It is sufficient to apply the adhesive on one side. Spread the adhesive with a spatula full surface.

One of the substrates should be porous respectively permeable to water vapour.

Curing time can be reduced by humidification and increased temperatures.

The moisture necessary for curing can be achieved by slightly spraying with water. The adherent surfaces may be moist, but not wet. The parts should be assembled immediately if possible, at the latest however within the skin-forming time.


Fix the substrates, which are to be bonded, until the adhesive is completely cured.

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

	12 l plastic canister	1,000 l container	200 l tin drum with tap holes*
 brown	P410-32-C05	on request	on request
Pieces per packaging unit	1	1	1
Pieces per pallet	40	1	

* OTTO Drain cock 2" with venting (AERO-FLOW) sold separately

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.

Only for commercial users.

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 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.