

COSMOPUR 811 1-component polyurethane adhesive

APPLICATION

COSMOPUR 811, with its hard-viscous adhesive joint and particularly long OPEN TIME, is used as constructional adhesive in the wood processing and other industrial fields. – For professional use only.

COSMOPUR 811 is processed as surface adhesive for a lot of different industrial applications. – For professional use only.

COSMOPUR 811 is suitable for the bonding of different material surfaces, e.g. PVC-hard, glass-fibre reinforced plastics (GFK, grinded), aluminium, high pressure laminate (HPL), etc. onto diverse insulating materials like PUR- and PS-foams and mineral wool.

COSMOPUR 811 obtains, during the wood/wood bonding, the strain group D4 according to EN 204, as well as a heat adhesive strength of approx. 10N/mm² according to WATT 91.

COSMOPUR 811 can be over-painted when hardened up.

TECHNICAL DATA

BASIS	1-component moisture cross-linked polyurethane, solvent-free (free from easy volatile organic compounds, boiling point <+200°C)		
FILM PROPERTY	of hardened up film		hard-viscous, foaming
VISCOSITY	Brookfield Sp06/50, +20°C	approx.	5.000 mPa.s
DENSITY	according to EN 542 at +20°C	approx.	1,14 g/cm ³
FILM FORMATION TIME - dry	at +20°C, 50% rel. air humidity, application quantity 500µm-PE/PVC	approx.	120 min
FILM FORMATION TIME - wet	at +20°C, 50% rel. air humidity, application quantity 500µm-PE/PVC	approx.	50 min
PRESS TIME	wood-/wood bonding at +20°C	from	4 h
FINAL SETTING TIME	at +20°C, 50% rel. air humidity at ~75% until total strength has been achieved	approx. approx.	24 h 7 d
MINIMUM TEMPERATURE FOR APPLICATION		from	+7 °C

WORKING INSTRUCTIONS

COSMOPUR 811 is applied by means of a spatula, a pouring installation (caterpillar-shape) or a glue roller, onto only one surface of the workpieces, which must be first dry and grease- and dust-free.

* The processing viscosity of 1-component polyurethane adhesives is, when processing at +15°C, approx. twice as high as at +25°C.

In order to guarantee a controlled hardening, when bonding non-absorbent materials or materials with <8% humidity, the adhesive film is sprayed with water (approx. 10g water/m² for 150g adhesive/m²). If necessary, up to 20% of the **accelerator COSMOPUR 836** are added to the reaction water, in order to reduce the press times. The workpieces are joined within the film formation time and pressed with 0,015N/mm² (~1.500kp/m²) until functional hardness has been achieved.

COSMOPUR 811 swells (foams) during the setting process!

For the bonding of non-absorbent surface layers, please take care that no air is included, when joining the surfaces; if necessary, the adhesive joint has to be aerated.

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WORKING INSTRUCTIONS

Grinding and cleaning with **COSMOFEN 60** or **COSMOPLAST 755**, and if necessary, applying the primer **COSMOPUR 820**, can improve the adhesion on plastic- and metal surfaces. For the bonding of PS-hard surfaces, it is principally necessary to prime with **COSMOPUR 820**.

On demand, the press times of **COSMOPUR 811** can be shortened with **COSMOPUR-accelerator**.

- * The hardened up adhesive changes its colour if it is exposed to the sun (UV-radiation), but its bonding strength does not change !
- * **Bonding of aluminium:** Only possible on chemically pre-treated or lacquered surfaces. Bright aluminium can only be bonded with a long-lasting aging resistance with a suitable pre-treatment of the surfaces to be bonded.
- * Bondings of materials with different linear expansion must be evaluated regarding their long-time performance particularly when loading in application areas with changing temperatures.
- * Bondings of solid timber/solid timber: the pressure should be possibly >1N/mm².

Please observe the technical information
“Wood/wood bonding in the outside area“, “Metal bonding “

APPLICATION QUANTITY depending on supporting material approx. 100-350 g/m²

FILM FORMATION TIMES, as well as the individual PRESS TIMES, can only be exactly found out through own tests, as they are strongly affected by material, temperature, application quantity, humidity, and other criteria. The user should provide adequate security additions to the given approximate values.

CLEANING

Not hardened up **COSMOPUR 811** is cleaned with **COSMOFEN 60**.
The tools can be cleaned with **COSMOPLAST 763**.
The cleaning of hardened up **COSMOPUR 811** is usually only mechanically possible.

STORAGE

Store **COSMOPUR 811** in tightly closed original casks, in a dry place, at a temperature between +15°C and +25°C, without direct solar irradiation. Can be stored in unopened original casks for approx. 12months. During the storage time, the viscosity rises.

CASK SIZE

10kg PE-canister, 220kg metal clamping-ring drum with inliner, other cask sizes are available on demand.

CLASSIFICATION

Information can be taken from the safety data sheet.

Our instructions for use, processing directives, product- or performance indications, as well as other technical statements are only general guidelines; they only describe the nature of our products (determined value at the production time) and their performance, but they give no guarantee in accordance with paragraph 443 of the BGB (Civil Code). Due to the variety of application purposes for each product, and due to a lot of different particular conditions (e. g. processing parameters, material properties, etc.), the user has to carry out his own individual qualifying tests. Our consultation in application technique, verbal and in writing, as well as with tests, is offered free of charge and is not legally binding. These documents replace former issues