

COSMOPUR 814 **1-component-polyurethane-adhesive**

APPLICATION

COSMOPUR 814, an adhesive with hard-viscous joint and very short press times, is used as constructional adhesive in the wood processing and other industrial fields.

COSMOPUR 814 is processed as surface adhesive for different kinds of applications in the industry, e. g. front door production - Only suitable for professional use by instructed personnel.

COSMOPUR 814 is suitable for the bonding of different material surfaces, such as PVC-hard, glass-fiber reinforced plastics (grinded), aluminium, high pressure laminate (HPL), etc. onto diverse insulating materials like PUR, PS-foam and mineral wool.

COSMOPUR 814 obtains, during the wood/wood bonding, the strain group D4 according to EN 204, as well as a heat bonding strength of approx. 10N/mm², according to WATT 91.

COSMOPUR 814 can be overpainted, 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.	3.650 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 500 µm-PE/PVC	approx.	10 min
FILM FORMATION TIME - wet	at +20°C, 50%rel. air humidity, application quantity 500µm-PE/PVC	approx.	5 min
PRESS TIME	wood-/wood-bonding at +20°C	approx.	20 min
FINAL SETTING TIME	at +20°C, 50%rel. air humidity at ~75% Until total strength has been achieved	approx. approx.	16 h 3 d
HEAT BONDING STRENGTH	according to WATT 91 at +80°C	approx.	10 N/mm ²
STRESS SHEARING STRENGTH	DIN/EN 205 beech/beech at +20°C	approx.	13 N/mm ²
MINIMUM TEMPERATURE FOR APPLICATION		from	+7 °C

WORKING INSTRUCTIONS

COSMOPUR 814 is applied with a spatula or a caterpillar-shape moulding device onto only one surface of the workpieces, which must be dry and free of grease and dust.

* The processing viscosity of 1-component-polyurethane-adhesives is, when processing at +15°C, approximately 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).

In this case, the workpieces should be joined within the film formation time and pressed together with 0,015N/mm² (~1.500 kp/m²), until the functional hardness has been obtained. **COSMOPUR 814** swells (foams) during the setting process!

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WORKING INSTRUCTIONS

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

Grinding, cleaning with **COSMOFEN 60**, or if necessary, applying the primer **COSMOPUR 820**, can improve the adhesion on plastic- and metal surfaces. For the bonding of PS-hard surfaces, the primer **COSMOPUR 820** should principally be used.

- * 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.
- * Bonding of solid timber/solid timber: pressure should be $>1\text{N/mm}^2$.

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

APPLICATION QUANTITY depending on supporting material
and kind of application approx. 100-350 g/m²

FILM FORMATION TIMES, as well as the individual PRESS TIMES, can only be 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

The cleaning of not hardened up **COSMOPUR 814** is effected with **COSMOFEN 60**. The cleaning of tools can be made with **COSMOPLAST 763**.

The cleaning of hardened up **COSMOPUR 814** is usually only mechanically possible.

STORAGE

Store original casks tightly closed, dry, at a temperature between +15°C and +25°C, without direct solar radiation.

Can be stored in unopened original cask for approx. 12months.

During the storage time, the viscosity rises.

CASK SIZE

10 kg PE-canister, 220 kg 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