

# Surepress 3D Plus LV

## with RAKOLL®-Crosslinker 3D Plus

### Membrane press adhesive

#### Properties

RAKOLL®-Surepress 3D Plus LV is a polyurethane dispersion with good adhesion properties which is used mixed with RAKOLL®-Crosslinker 3D Plus.

RAKOLL®-Crosslinker 3D Plus LV is a solvent-free, liquid isocyanate which mixes easily with the dispersion component.

The mixture can be readily sprayed and provides a good and even coating.

#### Applications

- Bonding of thermolaminates on shaped parts in membrane presses as well as in non-membrane presses.

#### Preparation

RAKOLL®-Surepress 3D Plus LV and RAKOLL®-Crosslinker 3D Plus must be mixed together homogeneously so that the finest possible distribution is achieved. For this purpose, the components should be mixed using motor-driven agitating paddles. The hardener is added to the agitated adhesive.

#### Mixing ratio

100 parts by weight RAKOLL®-Surepress 3D Plus LV  
+ 5 parts by weight RAKOLL®-Crosslinker 3D Plus

#### Pot life

RAKOLL®-Surepress 3D Plus LV + 5 %  
RAKOLL®-Crosslinker 3D Plus: 8 ... 10 h

Potlife depending on ambient temperature.

#### Application method

RAKOLL®-Surepress 3D Plus LV with RAKOLL®-Crosslinker 3D Plus is best applied using HVLP (High Volume Low Pressure) spray guns, nozzle diameter is ideally above 0,6 mm.

The quantity of adhesive to be applied depends on the type of material and the shape of the parts. It can vary within a wide range and can only be determined by trials for a given set of variables. As a rough guideline 50 ... 60 g/m<sup>2</sup> on the machined surface and 20 ... 40 g/m<sup>2</sup> on the non-machined surface can be assumed.

#### Drying

The adhesive should be allowed to dry completely. The required drying time is affected by external factors, such as room climate, quantity applied, absorbency of the material, etc. For normal temperatures, 20 minutes to one hour can be assumed. Heat and/or air motion reduce the drying time. We recommend to press the substrates within one working day of spraying. Experience shows, if the panel is left longer, on average we see a reduction of up to +10 °C of heat resistance.

#### Press conditions

The pressing conditions depend on factors such as the thickness of the foil and colour (and its stiffness), temperatures and pressure.

Starting values for trials:

Membrane temperature: 80 ... 120 °C

(However, there can be a difference from the computer reading to the actual reading. H.B. Fuller offer the use of their thermologging equipment to improve and secure the quality of the finished goods.

Recommended reactivation temperature  
in the glue line: above 50 °C

Press pressure: 3 ... 4 bar

Cycle time: 120 ... 240 sec

Final strength of the bond is achieved after several days, however, there is enough strength to trim the panels directly after pressing.

### Heat resistance

The heat resistance of the manufactured pieces depends amongst other factors on the glued materials and the shape of the profiles. No general statement can therefore be made regarding the heat resistance.

Typical values reached approx. 100 °C for 1 h according to the European Rising Heat Test. RAKOLL® 3D Adhesives reach BS 6222/BS 6250.

### Cleaning

Clean application tools with water before the adhesive dries.

### Chemical-technical data

RAKOLL®-Surepress 3D Plus LV

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Basis: PUR Dispersion

Viscosity: approx. 400 mPa.s  
(Brookfield RV, spindle 2, 20 rpm, at +20 °C measured on the day of production)

pH value: approx. 8,0

#### Technical stage of development: January 2008

The data of former leaflets which differ from this version are no longer valid .



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### Labelling and Safety recommendations

Please request our EC Safety Data Sheets when working with RAKOLL®-Surepress 3D Plus LV + RAKOLL®-Crosslinker 3D Plus.

### Storage

Store RAKOLL®-Surepress 3D Plus LV in tightly closed original containers between +15 °C and +20 °C. Never use the adhesive below +15 °C. Protect from frost. Adhesive and substrates should be conditioned at ambient temperatures 24 hours before use.

The shelf life is at least 6 months.

The same applies for RAKOLL Surepress Crosslinker 3D Plus.

#### OBSERVATIONS

All information, whether written or verbal regarding our products, their applications and uses, is given in good faith and based upon tests made by us, results of our research work and practical experience. Whilst we guarantee the constant quality of our products, we cannot be responsible for the results obtained in their use, since the conditions of

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