

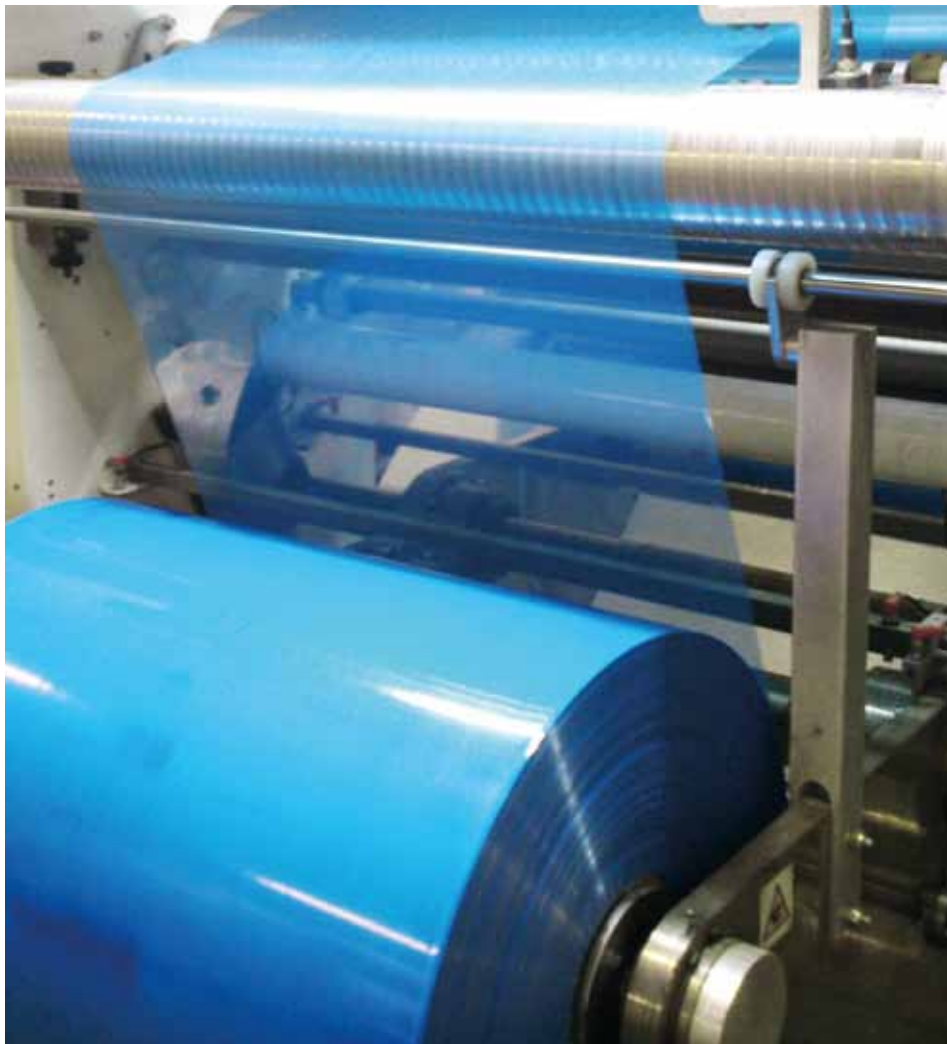


**KLEIBERIT®**

ADHESIVES • COATINGS

# KLEIBERIT FlexPack

Adhesives for the Production of Flexible Packaging



Lamination with solvent-free PUR adhesives

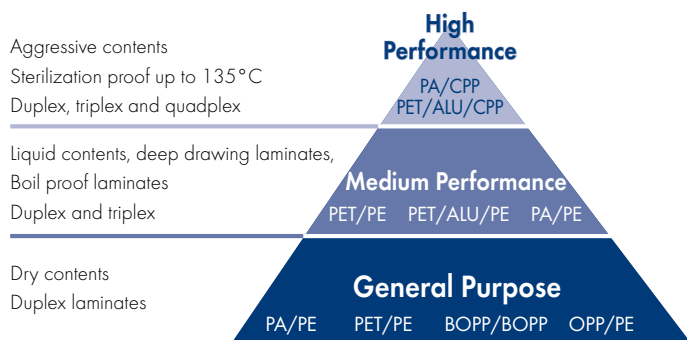
Competence **PUR**

# KLEIBERIT FlexPack – Adhesives for the Prod

## Why KLEIBERIT?

We have more than 60 years of experience in the development, production and processing of PUR adhesives. With our worldwide network of sales engineers and our presence in all international markets, we offer our customers solutions and products which are tailored for their requirements. In our local sales offices and in our customer service center located in Weingarten Germany, we speak nearly every language. We don't only offer you the highest quality standard, but also comprehensive technical support in our Technical Center where engineers and technicians can work on your specific product solutions. An intelligent logistics concept with a modern high rack warehouse ensures product availability at the right time at the right place.

The future is in solvent-free systems. We offer adhesives for areas ranging from general purpose to high performance for paper, film and foil lamination.



The combination of our KLEIBERIT lamination adhesives (641.0/642.0/642.1) as well as hardener (643.0/643.1) complies with the following recognized rules and regulations:

- FDA 21 CFR § 175.105
- EU-Regulation Nr. 10/2011
- BfR recommendation Chapter XXVIII

## KLEIBERIT 472.0

**One component water based adhesive for high gloss lamination**

KLEIBERIT 472.0 for laminating primed foils (OPP, PET and acetate films) to printed and unprinted paper and cardboard.

- Very good application characteristics even at very fast line speeds
- Non-foaming
- Short setting time
- Very good gloss level and very good embossing
- Solvent and plasticizer free
- Applied Quantity: Depending on the type of foil 5-10 g/m<sup>2</sup> (dried)



## KLEIBERIT 641.0

**One component, moisture curing and solvent-free polyurethane adhesive for high gloss lamination.**

KLEIBERIT 641.0 is suitable for high gloss lamination consisting of paper with foil/film, e.g. book covers, magazine covers, etc. The adhesive is a moisture curing system and should therefore be processed without being exposed to moisture if possible. A standard roller system is used for processing. The temperature and rollers should be adjusted to the processing parameters and are usually in an area of 60-100°C.

- Suitable for paper laminates such as paper/foil, paper/film, carton/film
- Ideal wetting, also on surfaces which are entirely printed
- Coat weight: 2-5 g/m<sup>2</sup>
- Good stability time in the machine
- Minimal adhesive waste
- Fast subsequent processing
- High transparency



## Production of Flexible Packaging

### KLEIBERIT 642.0 & Hardener 643.0 ●●▲●●

Two component, solvent-free polyurethane adhesive for foil lamination - quickly PAA free.

KLEIBERIT 642.0 with Hardener 643.0 is excellent for foil lamination for the production of flexible packaging and is free from PAA after 3-5 days (depending on film, coat weight, processing parameters). The ideally adjusted system allows for low processing temperatures between 30- 50°C as well as long machine standstills. It features excellent wetting properties, even at high line speeds.

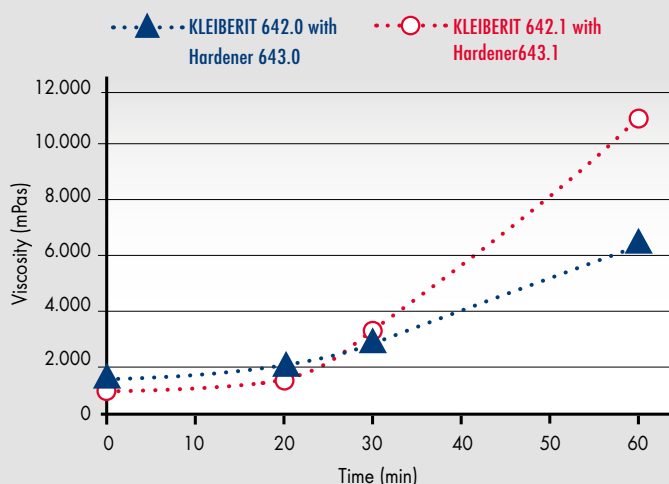
### KLEIBERIT 642.1 & Hardener 643.1 ●●○●●

Two component, solvent-free polyurethane adhesive for foil lamination

KLEIBERIT 642.1 with Hardener 643.1 is suitable for universal, error-free production of laminated foils in areas ranging from general purpose to high performance. This results in a variety of applications as well as quick subsequent processing of the foils.



Viscosity Curve at 45 °C (Brookfield HB-DV III(Sp. 27; 10 rpm)



- Suitable for lamination at high line speeds up to 450 m/min
- Sealable after 48 hours
- High transparency

- Low processing temperature between 30-50 °C
- Suitable for lamination at high line speeds
- Sealable after 36 hours
- High transparency

| Product                  | Type       | Mixing Ratio | Viscosity [mPas]                          |           |           | Processing Temp. | Coat Weight              | Application |           |                |           | Properties                    |
|--------------------------|------------|--------------|---|-----------|-----------|------------------|--------------------------|-------------|-----------|----------------|-----------|-------------------------------|
|                          |            |              | 100 °C                                    | 80 °C     | 45 °C     |                  |                          | film/paper  | film/film | film/met. film | film/foil |                               |
| 472.0                    | dispersion | -            | 18 s<br>(DIN 53211, nozzle 4 mm at 20 °C) |           |           | 18 - 22 °C       | 5 - 10 g/m <sup>2</sup>  | ■           |           |                |           | good clarity on clear films   |
| 641.0                    | 1C PUR     | -            | 1000 mPas                                 | 1800 mPas | -         | 60 - 100 °C      | 2 - 5 g/m <sup>2</sup>   | ■           |           |                |           | good stability in the machine |
| 642.0/<br>Hardener 643.0 | 2C PUR     | 100 : 40     | -   | -         | 1800 mPas | 30 - 50 °C       | 1,1-2,5 g/m <sup>2</sup> |             | ■         | ■              | ■         | PAA-free after 3-5 days*      |
| 642.1/<br>Hardener 643.1 | 2C PUR     | 100 : 40     | -   | -         | 1500 mPas | 30 - 50 °C       | 1,1-2,5 g/m <sup>2</sup> |             | ■         | ■              | ■         | fast setting*                 |

\* depending on, among other things: film, coat weight and processing properties



# Modern Technology, Know-how and Commitment...

**KLEBCHÉMIE M.G. Becker GmbH & Co. KG** has been developing and producing adhesives for a wide variety of industrial applications since 1948. The company, founded M. G. Becker, began the development of adhesives predominately for the wood working industry. However, today we can fulfil the high demands of a wide variety of industries for the bonding of wood, plastics and metals.

Always a step ahead of the future, our experienced chemists, chemical technologists and engineers develop new high quality adhesives in our development laboratories in accordance to customer requirements. Great emphasis is placed on environmentally friendly and ecologically "clean" adhesives.

Our applications laboratory tests our products for our own high product and application quality expectations with state of the art machines. This enables us to test our products under production conditions. Qualified wood and plastics engineers, wood technologists and machine engineers recreate production conditions to trial bonds under strict and intense controls in accordance to DIN and RAL.

Constant monitoring of the raw materials and product quality enables us to delivery high quality products at any time. Before the filling / packing of any product, a production sample of every batch is analysed in our quality control laboratory to determine chemical and physical compliance. Only after these tests are passed will the product receive QC clearance.

## **KLEIBERIT® Adhesives worldwide:**

**KLEIBERIT Chimie S.a.r.l.**  
Reichstett, France

**KLEIBERIT Adhesives UK**  
Coalville, Leicestershire, United Kingdom

**KLEIBERIT Adhesives USA Inc.**  
Waxhaw, North Carolina, USA

**KLEIBERIT Adhesives of Canada Inc.**  
Toronto, Ontario, Canada

**KLEIBERIT Adhesives Asia Pte. Ltd.**  
Singapore, Singapore

**KLEIBERIT Adhesives Australia**  
Sydney, Australia

**KLEIBERIT Adhesives Japan**  
Osaka, Japan

**KLEIBERIT Adhesives Beijing Co., Ltd.**  
Beijing, China

**KLEIBERIT Russia**  
Moscow, Russia

**KLEIBERIT Adhesives India Private Ltd.**  
Bangalore, India

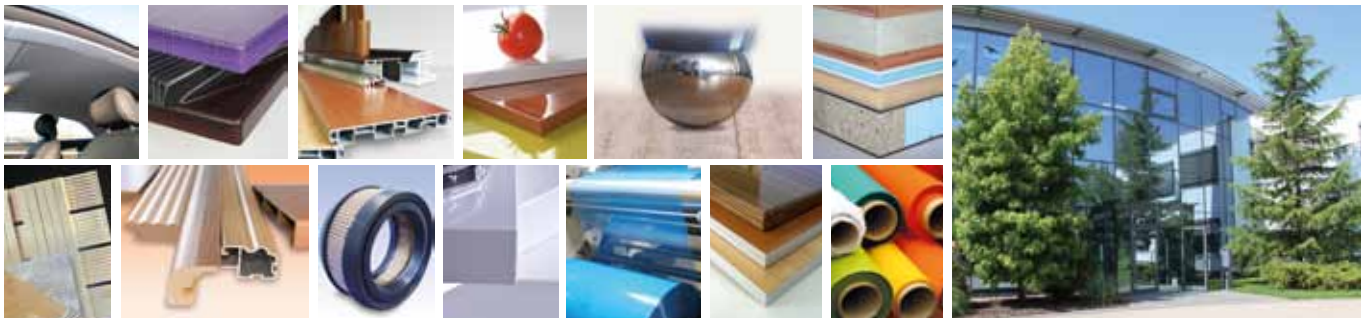
**KLEIBERIT-UKRAINE LLC.**  
Kiev, Ukraine

**KLEIBERIT Kimya San. ve Tic. A.Ş.**  
Istanbul, Turkey

**KLEIBERIT do Brasil Comércio de Adesivos e Vernizes Ltda.**  
Curitiba, Brasil

**KLEIBERIT Bel**  
Minsk, Belarus

**KLEIBERIT Adhesives México S.A. de C.V.**  
Queretaro, Mexico



The KLEIBERIT product range enables us to deliver to recognised companies worldwide in the wood, plastics and metal industries and could also fulfil your requirements for:

1. Solvent-free dispersions
2. Hotmelts (PUR, EVA, Polyamide, Polyolefin, Polyester)
3. Contact adhesives
4. Hotmelts for the wood, building and automotive industry
5. Two component PUR and epoxy systems
6. Foams and sealants
7. Solvent based adhesives

550 employees  
45 000 t tons of adhesive output  
per annum



[www.kleiberit.com](http://www.kleiberit.com)  
Competence PUR



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