

# KLEIBERIT HotCoating<sup>®</sup>

## Surface Refinement of Flooring and Furniture

## INFORMATION

With **KLEIBERIT PUR HC 717**, the company KLEBCHÉMIE developed a new technological process which:

- revolutionises surface sealing
- achieves a surface which enhances the natural optic and haptic of solid wood
- significantly simplifies the complete process



**KLEIBERIT**  
**PUR 717**

HotCoating is the process in which **KLEIBERIT PUR HC 717** is applied to the surface. Even with low coat weight, the coating has high wear resistance and shock resistance. The coat weight and the degree of gloss can be adjusted to customer requirements.

The **KLEIBERIT HotCoating<sup>®</sup>** process is not only uncomplicated and easy to operate, there are also no VOC or formaldehyde emissions.

HotCoating – this process offers a wide variety of advantages:

- Singular application
- 100 % solids
- Smaller production areas
- Lower capital expenditure
- Reliable production
- Variable

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### Application

**KLEIBERIT PUR HC 717** is solid at room temperature and has to be molten with the aid of a pre-melter. The PUR coating is applied to the surface during the HotCoating process.

The chemical cross linking of the PUR material achieves a very high surface hardness, which is extremely shock and wear resis-

tant. The PUR material also has very high UV stability and chemical resistance.

Direct application of a **UV hardening topcoat** ensures precise setting of the desired gloss level and allows for variations in colouring.

The possibility to emboss three dimensional structures, for example pores, with the calendar lets your creativity run free.

### 5 step process

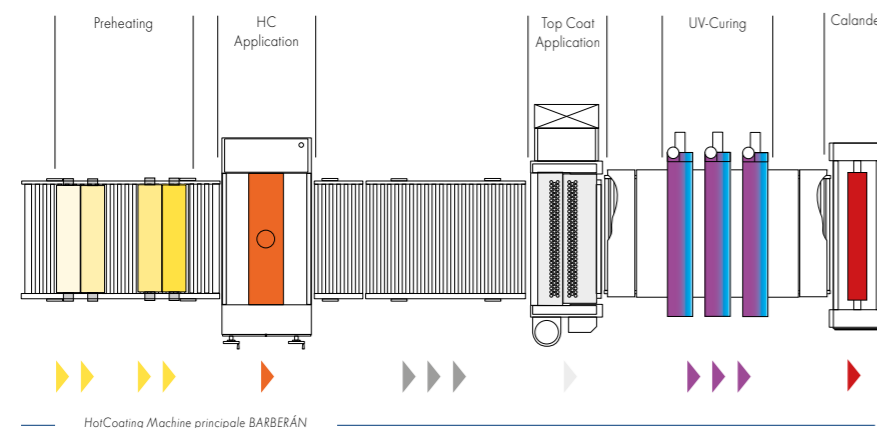
1. Filling
2. Sanding
3. Under coating
4. Sanding
5. Lacquering

in

1 step process  
in an  
8 m inline machine

**KLEIBERIT PUR HC 717**

### HotCoating in-line process



Products	Application	Basis	Viscosity [mPas] at 120° C at 140° C	Application temperature [°C]	Coat weight [g/m <sup>2</sup> ]	Colour	Properties
<b>PUR HC 717.0</b>	Veneer/paper	PUR	30.000 15.000	100-140	25-100	Transparent	<ul style="list-style-type: none"> <li>• Highly flexible</li> <li>• UV resistant</li> </ul>
<b>PUR HC 717.5</b>	Veneer/paper	PUR	16.000 8.000	100-140	60-100	Transparent	<ul style="list-style-type: none"> <li>• high abrasion resistance</li> <li>• contains corundum</li> <li>• UV resistant</li> </ul>
<b>PUR HC 717.1</b>	Furniture/doors	PUR	5.000 3.000	100-140	15-100	Transparent	<ul style="list-style-type: none"> <li>• Low viscosity</li> <li>• UV resistant</li> </ul>
<b>UV TopCoat 659</b>	Topcoat	Acrylat	20 sec (6mm DIN cup)	20-30	5-15	Transparent	<ul style="list-style-type: none"> <li>• Various gloss levels</li> </ul>

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# KLEIBERIT HotCoating<sup>®</sup> ...

The alternative to lacquering WITHOUT losing the desired properties of a lacquered surface.

## Flooring / Complete Parquet

### Up to now ...

Complete parquet, meaning already surface sealed parquet, is in strong demand. Many end customers who want to avoid the sealing process in their homes or businesses are therefore buying surface treated parquet.



UV hardened lacquer systems are predominantly used in parquet and floor production. These lacquers are applied in multiple layers by rollers and are hardened with the aid of UV light.

This process is the status of technology; however, it has several disadvantages:

- Very large production areas required
- Requires several applications of individual lacquer layers
- Several products required: Filler - Base coat - Lacquer
- Interim sanding required several times
- High capital expenditure

### From today ...

**KLEIBERIT HotCoating<sup>®</sup>** offers an alternative and a very compact and easy to operate technology with low capital expenditure.



By merely adjusting the application quantity, the abrasion class of the flooring can be simply varied to the high-end area. The surface also offers the following important flooring characteristics:

- Excellent shock resistance
- Very good water resistance
- Brilliant transparency
- Universal bond
- Pleasant acoustic characteristics

**Significant material and machine cost savings!**

**... more than 20% per m<sup>2</sup>**

In comparison to the traditional lacquering process, users of

**KLEIBERIT HotCoating<sup>®</sup>** realize enormous cost savings through lower coat weights and eliminating extensive sanding.

Flooring experts confirm that while in use, wrapping of flooring can never be absolutely avoided. **HC 717** keeps its form through its extraordinary flexibility and shock resistance, even with mechanical impact (pebbles, heels, etc.) of the protective function.

### HotCoating<sup>®</sup> High Abrasion Resistance

KLEBCHÉMIE has further developed the innovative HotCoating technology. The industry can now use a HotCoating coating with the highest abrasion resistance reaching the highest abrasion class (>AC5) according to DIN EN 13329. It is still applied in one simple step with uncomplicated application technology.

There is **no micro-cracking** which can destroy the sealing. In addition, even with low coat weight, HotCoating offers a very high wear resistance which additionally guarantees the ability for long-term use of the flooring.

HotCoating - the surface has the following characteristics:

- High UV stability
- Very high shock resistance
- Very high wear resistance
- High scratch resistance
- Good chemical resistance

Tested by the **ihd Institut für Holztechnologie in Dresden** (Institute for Wood Technology in Dresden)



## Furniture Surfaces / Doors

**KLEIBERIT HotCoating<sup>®</sup>** enables the furniture and door industries to produce high quality surfaces with a cost-effective and easy to operate technology.



The compact roller application technology enables reproducible surfaces at very high line speeds.

Since HotCoating is a 100% solid content system and does not contain water or solvents whatsoever, there are no problems with stringing, VOC or formaldehyde emissions.

## HotCoating - the modern surface refinement of the future.



The good surface properties of **KLEIBERIT HotCoating<sup>®</sup>**, like the extremely good shock resistance and the high wear resistance, are complemented with the very pleasant haptic of the HotCoating PUR system.

Therefore, real wood surfaces are not only optimally protected, but its warmth and natural structure is also emphasized.

## Decorative Surfaces / Direct Print / Digital Print

In profile wrapping, diverse decorative papers and foils are being used in addition to real wood veneer. As the décor is always being more perfectly developed, printing technology is experiencing a revival through advanced processes.

The first trends and imminent future use of printing technology shows individual and creative design which can also be realized with smaller lot sizes.



**KLEIBERIT HotCoating<sup>®</sup>** offers many possible combinations in laminating and printing technology.

The very good bonding properties of **PUR HC 717** to paper, print colours and lacquer systems allows for the use as protective refinement or as the sealing basis for printing.

HotCoating is applied as a smooth film on wood derived material with an intelligent roller application system and therefore replaces an extensive, multi-layered under layer build-up which is required in the corresponding drying zones and interment sanding.

# ...no interim sanding