

## KLEIBERIT Products for Profile Wrapping Exterior

	Product	Viscosity at 120 °C [mPa-s]	Viscosity at 140 °C [mPa-s]	Application Temperature [°C]	Coat Weight [g]	Line Speed [m/min]	RAL approval	Applications	Characteristics
PUR Hotmelts	704.0	30,000	15,000	120 -140	50 ± 10	from 5	-	approved by GZ 716/1, wrapping PVC and aluminum profiles with PVC and pretreated acrylate foils	Wide processing window, long open time
	704.3	33,000	17,000	120 - 140	50 ± 10	from 5	GZ 716	Wrapping PVC profiles with PVC and pretreated acrylate foils	Excellent aging resistance, very fast strength build-up
	704.5	33,000	17,000	120 - 140	50 ± 10	from 5	GZ 716	Wrapping PVC and aluminum profiles with PVC and pretreated acrylate foils	Wide processing window, fast strength build-up
	704.6	60,000	35,000	120 - 140	50 ± 10	from 5	GZ 716	Wrapping PVC and aluminum profiles with PVC and pretreated acrylate foils	Very fast strength build-up
	704.7	33,000	17,000	120 - 140	50 ± 10	from 5	GZ 716	Wrapping PVC profiles with PVC and pretreated acrylate foils	Excellent aging resistance
	704.8	35,000	18,000	120 - 140	50 ± 10	from 5	GZ 716	Wrapping PVC profiles with PVC and pretreated acrylate foils	Very fast strength build-up
Solvent Adhesives	257.7 + 870.0	2,000 (20°C)	-	20	90 - 130	up to 20	GZ 716	Wrapping PVC profiles with PVC foils	Use of up to 5% KLEIBERIT 870.0 hardener, high aging resistance
	261.7 + 870.0	2,000 (20°C)	-	20	90 - 130	up to 20	-	Wrapping PVC profiles with PVC foils	Use of up to 5% KLEIBERIT 870.0 hardener
Cleaner	761.7	11,000	6,000	120 - 140	-	-	-	Cleaner for cleaning of melting and application units for maintaining equipment during longer periods of downtime.	Good mixture properties with PUR hotmelts, blue colour

	Product	Density [g/cm³]	Viscosity [mPa-s]	Solvents according to Hazardous Material Regulation	RAL approval	Flammable	Identification	Application method	Applications	Characteristics
Primer	831.0	1.33	20	methylene chloride	GZ 716	no	GHS07 GHS08	primer felt pad	Fluorescent primer for wrapping PVC and aluminum profiles	Wide processing window, fast evaporation
	831.2	1.27	10	solvent mixture	GZ 716	no	GHS07 GHS08	primer felt pad	Fluorescent primer for wrapping PVC profiles	Wide processing window, more aggressive version of 831.0, fast evaporation
	831.4	0.85	30	solvent mixture	-	yes	GHS02 GHS07 GHS08	primer felt pad	Fluorescent primer for PMMA profile wrapping and for pretreating acrylate foils	Fast evaporation
	831.6	1.3	20	methylene chloride	-	no	GHS07 GHS08	primer felt pad	Fluorescent primer for wrapping PVC profiles	Fast evaporation
	831.7	1.33	10	methylene chloride	-	no	GHS07 GHS08	primer felt pad	Fluorescent primer for wrapping PVC and aluminum profiles	Fast evaporation
	831.8	1.33	15	methylene chloride	-	no	GHS07 GHS08	primer felt pad	Fluorescent primer for wrapping PVC profiles	Wide processing window, more aggressive version of 831.2 for different PVC profile recipes, fast evaporation
	840.3	1.04	15	omitted	GZ 716	no	not required	primer felt pad and vacuum technology	Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, without the addition of NEP
	840.4	1.05	20	solvent mixture	GZ 716	no	GHS05 GHS08	primer felt pad and vacuum technology	Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC
	840.5	1.05	10	solvent mixture	GZ 716	no	GHS05 GHS08	primer felt pad and vacuum technology	Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, water based
	840.6	1.05	20	solvent mixture	GZ 716	no	GHS05 GHS08	primer felt pad and vacuum technology	Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC
Primer	840.7	1.06	15±5	solvent mixture	GZ 716	no	GHS08	primer felt pad and vacuum technology	Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, without the addition of NEP
	840.8	1.05	15	solvent mixture	GZ 716	no	GHS05 GHS07	primer felt pad	Fluorescent primer for wrapping PVC profiles with PUR hotmelt	Low VOC, without the addition of NEP
	848.1	0.82	10	solvent mixture	GZ 716	yes	GHS02 GHS07	primer felt pad	Fluorescent primer for wrapping PVC profiles	Fast evaporation
Cleaner	822.2	0.96	2	NBP	-	no	GHS07	-	Cleaning agent for application tools and machines of steel for uncured and cured PUR adhesives	-
	822.6	0.96	6	omitted	-	no	not required	-	Cleaning agent for application tools and machines of steel for uncured PUR adhesives	-

# Stay Cool During the Tropic Test

with adhesive systems from KLEIBERIT!



Window Profile Wrapping Exterior



# Stay Cool During the Tropic Test with adhesive systems from KLEIBERIT!

For more than 40 years, PVC windows for internal as well as external use have been wrapped with decorative PVC foils. The standard required of the adhesives was then, and is now, very high. High temperature, humidity and ageing resistance, as well as a high green strength for inline production are just some of the requirements for perfect end products.

Over the last 25 years, solvent-free polyurethane hotmelts have been the alternative to solvent adhesives, and they also still cover all profile wrapping requirements. KLEIBERIT PUR Hotmelt 704 set a quality standard in the market.

The complete KLEIBERIT product range is the answer to using new profile and foil systems, quick subsequent processing and fulfilling the requirements and guidelines of the new RAL GZ 716.

## Neutral and constantly monitored

RAL Quality Marks (Gütezeichen) identify those products and services that are manufactured or provided according to high, precisely specified quality criteria. RAL determines the requirements for the relevant quality mark in each group of products or services during an approval procedure. This process includes manufacturers and suppliers, the trade and consumers, testing institutions and associations. The product and performance-specific quality criteria comprise all aspects that are important and sensible for the use of the product or service. They are published by RAL and accessible to anybody.



## PUR Hotmelts

### Advantages:

- In addition to setting physically, chemical cross linking takes place
- Therefore significantly higher temperature and humidity resistance (up to 140°C)
- Very good aging resistance
- Good bond properties to plastics and metals (i.e. aluminum)
- Successful exterior use for over the last 25 years

For wrapping thermoplastic foils, veneers, papers to wood, wood based materials, aluminum and PVC profiles.



## KLEIBERIT 707/ 702

Especially for wrapping CPL or papers to PVC windowsills and aluminum profiles

- Very high green strength for wrapping materials with high memory

## Solvent Adhesives

### Advantages:

- Good heat resistance as one-component adhesive
- Highest temperature and humidity resistance with KLEIBERIT 870.0 Hardener
- Good bond properties to plastics and metals



## Application

### PUR Hotmelts

Depending on the type, they are low to medium viscous in their molten state condition. They distinguish themselves through good melting properties, good dosing, and long open time but high green strength. The adhesive is always applied to the under-side to the wrapping material via roller, doctor blade or slot nozzle. The application temperature is between 100°C - 140°C.

### Solvent Adhesives

KLEIBERIT 257.7 and 261.7 are applied at room temperature after the addition of KLEIBERIT 870.0. The adhesive is applied via a doctor blade to the underside of the wrapping material. The majority of the solvent is evaporated in a drying tunnel or with heated plates before



## Our KLEIBERIT products with RAL GZ 716 approval:

PUR Hotmelts	Primer
704.3	831.0
704.5	831.2
704.6	840.3
704.7	840.4
704.8	840.5
	840.6
	840.7
	840.8
	848.1

  

Solvent Adhesives
257.7 + 870.0

## KLEIBERIT 704.3

- High initial strength
- Very fast setting
- Excellent temperature, weathering and aging resistance
- Approved by RAL GZ 716

## KLEIBERIT 704.5

- Excellent processing properties
- Fast setting
- Excellent temperature, weathering, and aging resistance
- Approved by RAL GZ 716
- Easy to apply with slot nozzle, doctor blade and roller

## KLEIBERIT 704.6

- Very high green strength
- Long open time
- Approved by RAL GZ 716
- Very well suited for wide laminating lines
- Can be used for a variety of applications

## KLEIBERIT 257.7 and 261.7

For wrapping PVC foils and papers to PVC and aluminum profiles.

- Used with 5% KLEIBERIT 870.0 Hardener for very high temperature, humidity and aging resistance
- Application is carried out at room temperature with doctor blade

## Primer

For pre-treating PVC profiles for wrapping

## KLEIBERIT 840.3

- Fluorescent formulation to control application on the entire surface
- Approved by RAL GZ 716
- Low VOC, without the addition of NEP
- Identification not required

the foil comes in contact with the profile. The foil is wrapped on to the profile by rollers placed in accordance with the profile geometry.

## Profile preparation

PVC profiles are normally blown off with dry, ionized air before the primer is applied. Afterwards the primer (KLEIBERIT 831, 840 or 848) is applied using felt pads which have been adjusted to the respective profile shape. When using modern low VOC primer systems (e.g. KLEIBERIT 840), the use of vacuum application technology is becoming more prevalent. The primer is subsequently dried using heat sources such as IR heaters or hot air blowers.