

## Technomelt PUR 9622-02 UVNA

June 2014

Issued 7/29/2014

**TYPE:**

Polyurethane Hot Melt Adhesive

**FIELD OF APPLICATION:**

A high performance, moisture curing hot melt adhesive primarily used for assembling and laminating areas including automotive interiors, wood and furniture industry, and textile and foil industry (laminates).

**Product Description**

The uncured product is crystalline and demonstrates the following characteristics:

- very good application properties (can be sprayed and roller coated)
- good wetting properties of the molten mass to shaped fibre materials
- fast setting (well fitted for laminations)
- high initial strength after solidification. - extremely short setting time (for machinery and manual edge wrap)

Technomelt PUR 9622-02 UVNA cures by **moisture** within short time, forming a hard elastic material, demonstrating the following characteristics:

- high softening point above 100°C
- good chemical resistance (e.g. to fuel-oil mixture, numerous plasticizers, solvents, aqueous surfactants, salt spray)
- adhesion to shaped fibre materials, wood, foils (soft PVC, TPO), textiles, thermoplastics (e.g. ABS, ABS/PC, PA, etc.) and - after pretreatment - also to nonpolar plastics (e.g. PE,PP, etc.).

**Application Areas****Technical Data**Uncured

Color: light ivory, fluorescent  
Odor: weak  
Density: approx. 1.2 g/cm<sup>3</sup>  
Solids: 100%  
Viscosity at 130°C: 55 ± 25 Pa.s

Equipment:

Rotation viscosimeter  
Brookfield

Measuring System:

Thermosel SP27

Speed:

5 rpm

Softening Point DIN 52011:

approx. 64°C

Melting Point:

approx. 75°C

Open Time (\*):

approx. 10 ± 5 s  
(depending on mode of application, layer thickness and the substrates)

Reactivation time (\*\*):

approx. 3 hrs. (at 23°C/50 % rh)

Application temperature (\*\*\*):

110°C to 150°C  
(maximum 160°C for a short period of time)

Consumption:

20 - 150 g/m<sup>2</sup>  
(depending on material combination and application system)After curing

Shear strength (DIN EN 1465):

approx. 9 MPa  
(substrate failure)

Substrates:

beech wood (100 mm x 25 mm x 2.5 mm)

Layer thickness:

0.2 mm

Bonded area:

25 mm x 10 mm

Crosshead speed:

100 mm/min

In service temperature range:

-40°C to 120°C

Short exposure (up to 1 h):

130°C

(\*) When being cooled down the product shows a non tacky surface. Building up an intermediate stock with coated decor parts is possible creating no problems.

(\*\*) Reactivation time is the period within which applied and cooled down adhesive can be heated up again and thus be reactivated. The reactivation time depends in a decisive degree on the environmental conditions: moisture, room temperature and humidity of the coated substrates. By increasing temperature and/or relative humidity up to more than 23°C resp. 50 % rh the

## Technomelt PUR 9622-02 UVNA

June 2014

reactivation time will decrease strongly! At 30°C/75 % for instance it will only be approximately one hour!  
(\*\*\*) Application temperature among other things also depends on the substrate to be bonded. Because many common plastics contain internal accessory agents (slip additives, release agents, binding agents, etc.), they very often can only be bonded safely at very high temperatures (> 150°C). We urgently recommend trials prior to bonding!

### Preliminary statement

Prior to application it is necessary to read the **Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labelling, the relevant precautions should always be observed.

### Pretreatment

The bonding surfaces must be clean, dry and free of oil and grease. Substrate temperature should not fall below 20°C during application. Lower temperatures will lead to an early solidification of the adhesive and thus to a reduced open time, possibly the adhesive might even flake off. If necessary the substrates may be prewarmed, however, longer open times and thus extended cycle times will have to be taken into consideration at temperatures above 45°C.

### Application

Technomelt PUR 9622-02 UVNA can be applied from heatable cartridge guns, from usual tank melting equipment and from drums or hobbocks, using heatable equipment. The material may be applied by nozzle, roller, foamable, and sprayable systems.

### Comments on Application

#### Cartridge pistol/310 ml Aluminum cartridge:

- Adjusting application temperature (110 - 150°C); at short application periods (approx. 2 hrs.) temperature may be up to °C
- Cartridge must be prewarmed for approx. 90 mins in a heating box or heatable cartridge pistol (total content has to be molten); insert into pistol
- Adhesive is applied as bead, film or by spraying to the substrate to be bonded (\*)

#### Drum melting equipment/20-l-hobbock:

Adjust temperatures as follows:

- follower plate: 100°C (\*\*)

- pump: 110°C
- hose: 110 - 130°C
- pistol: 130 - 150°C (during malfunction 110°C)
- spray head: 150 - 170°C (temperatures are valid for continuous operation only)
- atomizing air: 170 - 220°C
- slot die: 130 - 150°C

#### Tank melting equipment/2,5-kg-tin:

**Notice:** A layer of nitrogen or dried air will have to protect the hotmelts in these “open systems”! Tank temperature and thus also thermal strain has to be kept as low as possible, for the total amount of adhesive is kept liquid in the tank melters.

Tank temperature: 130°C maximum, temperatures for hose and application components see above.

Longer rest periods in the tank at high relative humidity can lead to minor foaming and skin formation of the hotmelt.

Remedy: discharge hotmelts and fill tank with fresh material.

#### Roller coating/several:

The instructions from above are also valid for the tank of the roller coating equipment. Medium residence time of the material in the tank must not exceed 2 hours at 150°C maximum, because the hotmelt in the roller coater is exposed to humidity by the tank and by the rolls. Tank must only be filled slightly above the temperature probe. Tank temperature: 110 - 130°C; if the roller will be heated separately a temperature up to 150°C is possible. For on-line operations the tank is filled via a premelter. During interruptions temperature has to be decreased to approx. 100°C, washing the rolls with dried air or nitrogen.

#### Mode of application:

Technomelt PUR 9622-02 UVNA is applied with all common systems as dots or beads or two-dimensional (roller coating, spraying, slot die)

(\*) when coating substrates which differ strongly in thermal conductivity the substrate with the lower coefficient should always be coated (insulation effect)

(\*\*) due to the high viscosity problems with the output are possible during continuous dispatch; therefore the temperature of the follower plate can be increased up to 150°C for maximum two hours: at longer breaks the temperature must be decreased down to 120°C.

### Cleaning

As long as Technomelt PUR 9622-02 UVNA is not cured application equipment can be cleaned with Technomelt PUR Cleaner-02. (See separate Technical Data Sheet.) Cured adhesive can only be removed mechanically.

## Technomelt PUR 9622-02 UVNA

June 2014

### Curing

Technomelt PUR 9622-02 UVNA cures exclusively by moisture and gains its final strength after 3 - 7 days, but exhibits high handling strength after the physical process of setting.

Curing is a chemical reaction depending on the following parameters:

- humidity in the rooms for application and storage (assure possibility of humidity access; the adhesive will react extremely slowly with parts being wrapped in plastic foils!)
- humidity of the substrates (carrier and decor)
- permeability of the substrates to be bonded
- application weight/layer of the adhesive film. If required, we will assist you to determine your specific process data.

### Storage

Frost-sensitive:	no
Recommended storage temperature:	10°C to 25°C
Shelf life:	9 months in drum/pail

### Packaging

Drum (with inliner):	195 kg
Pail (with inliner):	18 kg

### Hazard Indications/Safety Recommendations/Transport Regulations

See Safety Data Sheet

### Precautions

No health hazards are expected with this product in its solid form. Once melted, it is like any hot liquid in that it can produce severe burns. Care should be taken to avoid getting the hot liquid adhesive on the skin. If this occurs, flush the affected area with large amounts of cold water. Do not try to remove the solidified hot melt. Seek medical attention immediately. Please refer to the safety data sheet for further information.

### Note

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of

property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties or merchantability or fitness for a particular purpose arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

### Trademark Usage

Except as otherwise noted, all marks used are trademarks of Henkel or its affiliates in the US and elsewhere ® denotes a trademark registered in the U.S. Patent and Trademark Office.