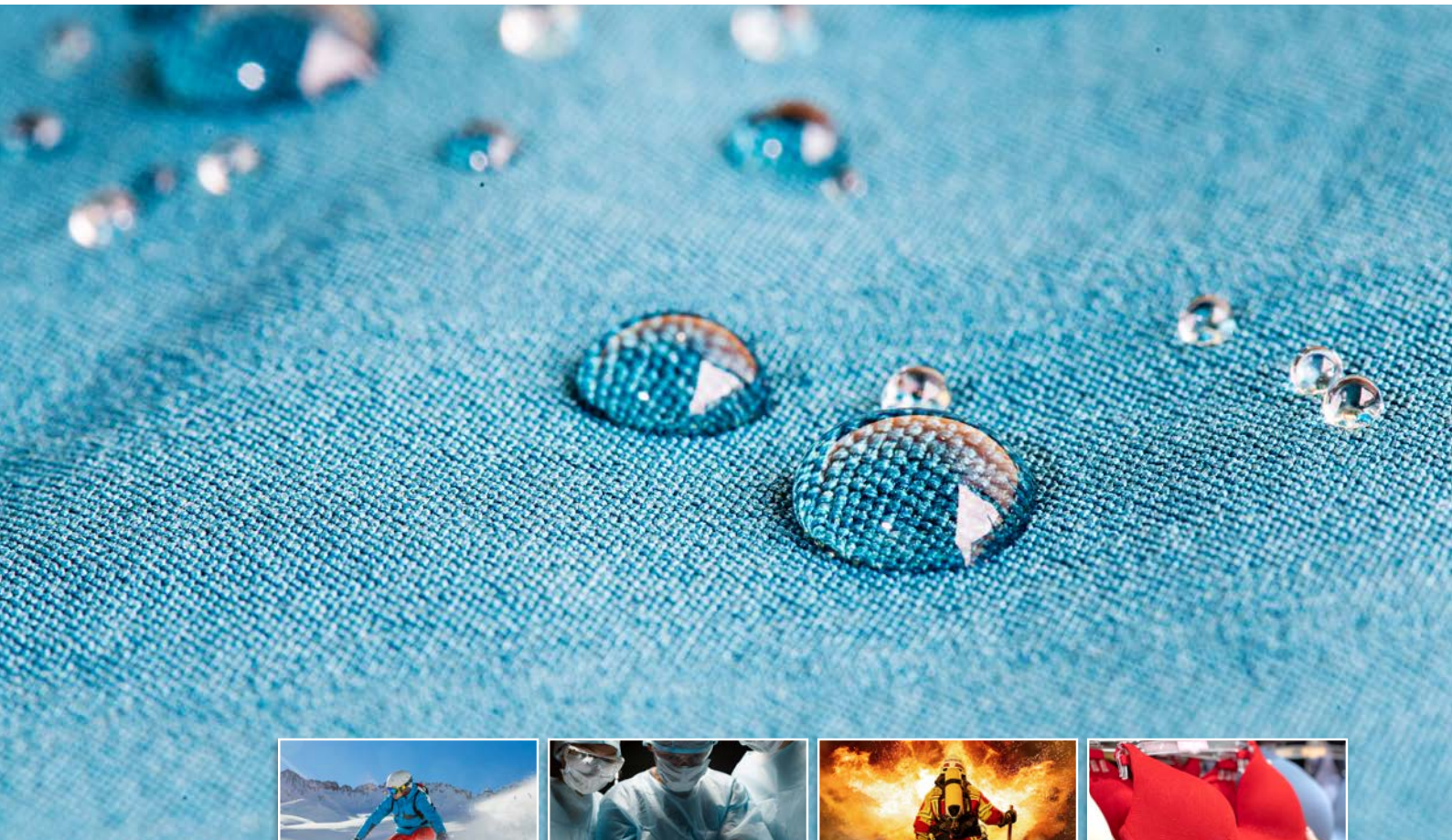
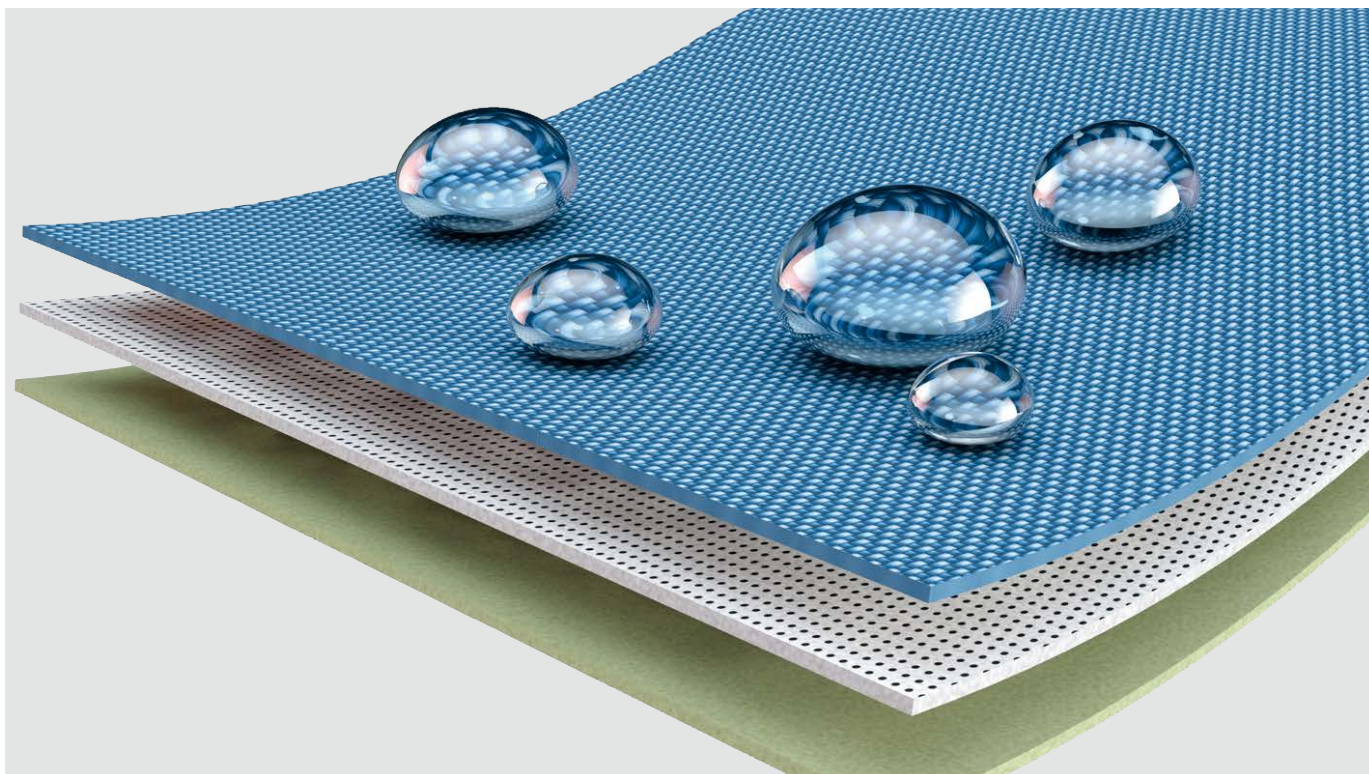


# Hotmelt adhesives with highest performance for **textile lamination**



Outdoor/sportswear, medical and hygiene, protective workwear, lingerie and swimwear

# Adhesives for textile lamination



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KLEIBERIT places high value on production quality, customer service and sustainability. We have these requirements confirmed on an annual basis by an external and independent audit team according to ISO 9001, ISO 50001 and ISO 14001.



Highly durable functional clothing and technical textiles require a highly developed adhesive system. Only reactive PUR hotmelt adhesives for textile lamination transform fabrics into a high-performance textile composite.

Content	page
Outdoor/sportswear	4
Occupational protection	5
Lingerie and swimwear	5
Medical and hygiene	6
Technical textiles	7
ECO PASSPORT by OEKO-TEX®	7
Product table adhesive and cleaner	8



### Micro-Emission PUR hotmelts

<b>KLEIBERIT T 701.6.50 ME</b>	<b>Micro-emission</b> reactive PUR hotmelt adhesive with <b>low application temperature</b> and <b>long open time</b>
<b>KLEIBERIT 701.8.00 ME</b>	<b>Micro-Emission</b> and <b>lightfast</b> reactive PUR hotmelt adhesive with <b>high initial strength</b>



### Sustainable PUR hotmelts

<b>KLEIBERIT 701.3.70</b>	Reactive PUR hotmelt adhesive with a <b>high proportion of recycled raw materials (approx. 40%)</b> and a <b>very high initial strength</b>
<b>KLEIBERIT 701.3.80</b>	<b>Bio-based</b> PUR hotmelt adhesive with <b>25% renewable raw materials</b> and a <b>very high bond strength</b>



## Outdoor/sportswear

Breathable sports and outdoor clothing consists of a two- or three-layer textile laminate whose layers are bonded together. The textiles reliably protect against moisture and provide excellent thermal insulation. A membrane prevents water from penetrating and allows steam to escape. For pleasant wearing comfort, the adhesive must contribute to a soft textile feel. To make this possible reliably in an efficient production process, KLEIBERIT offers diverse and highly developed adhesive systems as well as the corresponding know-how.

Typical applications are textiles for:

- softshell jackets
- fishing jackets
- rain jackets
- shoe uppers

Due to the unbeatable durability of adhesion, as well as the high adaptability to the production process, PUR hotmelt adhesives are increasingly used in industrial textile production. Textile lamination is usually realized using the roll-to-roll process. The hotmelt adhesive is applied by means of screen or engraving rollers.

Hotmelt adhesives with low processing temperatures are particularly in demand in the textile industry. They enable the processing of temperature-sensitive materials and at the same time contribute to a reduction in energy requirements. Emission-reduced adhesive systems are also setting the trend. With our monomer-reduced PUR hotmelt adhesives, we offer products that can be used without compromising processing as well as end performance.



sportswear



outdoor wear

## Occupational protection

Effective protection and maximum durability with many years of use - reliable and robust textiles are required for occupational protective clothing, for the manufacture of which highly durable adhesives are used.

### ADHESIVES FOR THE MANUFACTURE OF PROTECTIVE WORKWEAR

#### Firefighters' protective clothing

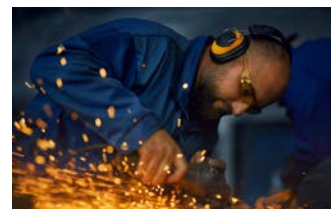
An interesting example is textiles used in the manufacture of flame-retardant firefighters' clothing. In hardly any other area does a textile laminate have to reliably withstand such heat stress. Furthermore, the textile laminate must offer the emergency workers the greatest possible freedom of movement. Therefore, in addition to very high heat resistance, a soft textile feel defines the adhesive profile for protective firefighting clothing.

#### Other protective clothing

Highly robust cut- and puncture-resistant textiles are used by security personnel or the police. In addition to reliable protection against sharp and pointed objects, a high level of wear comfort, as well as a high degree of mobility, is a crucial. In the manufacture of such a demanding textile laminate, reactive PUR hotmelt adhesives are ideally suited thanks to their outstanding properties. The rapid crosslinking of these special textile adhesives can significantly shorten the storage time of the textile roll goods before delivery and thus contribute to a significant increase in production output.



firefighters' protective clothing



other protective clothing



swimwear

## Lingerie and swimwear

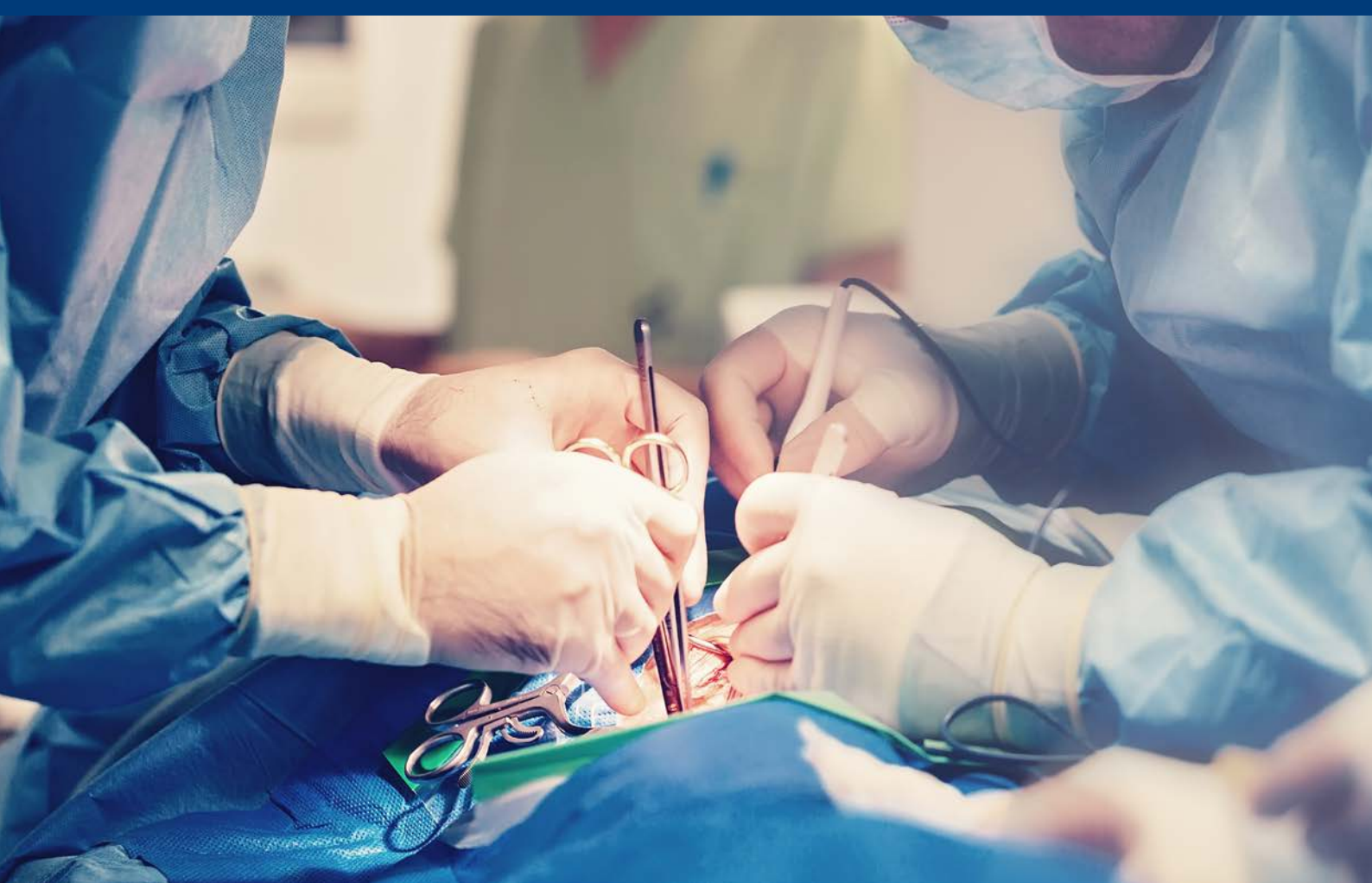
### ADHESIVES FOR LINGERIE AND SWIMWEAR

Fashion is multifaceted. It is in a constant state of flux thanks to creative collections. The materials for these textiles are just as diverse. The right adhesive is crucial for joining them together reliably. It must remain permanently elastic and also have appropriate washing resistance. The development of suitable adhesives for this area of application requires a high level of understanding of the end customers' usage behavior.

#### ADHESIVES FOR BRAS

In the production of bra cups, PU foam inserts are laminated with a wide variety of textiles. It does not need to be emphasized that a durable fit is of crucial importance. Furthermore, the connection between the cup and the strap is often realized with glue. The fact that glue has been used must not be noticeable. All movements of the user must be compensated for inconspicuously. Hardening, detachment or delamination in the course of aging or washing processes are unacceptable. No concessions can be made in this respect, especially with textiles that are close to the body.





## Medical and hygiene

Textile adhesive bonds are ubiquitous in the hygiene and medical sectors. In all cases, a reliable bond must be provided in accordance with the purpose, which can be realized in an efficient processing procedure. Our reactive PUR hotmelt adhesives designed for textile production are certified with the ECO-PASSPORT by OekoTex. This means they meet most of the strict standards required in the textile and clothing industry.

### MEDICAL TEXTILES FOR MULTIPLE USE

Medical clothing that is used multiple times consists, among other things, of a multilayer textile composite. The individual layers are glued together. Due to frequent boil washing or sterilization, these garments are exposed to extreme conditions. For example, surgical gowns or surgical drapes are subjected to particularly high stress. They are cleaned with special disinfecting detergents. They are then sterilized with hot steam.

The demands placed on the adhesive used are particularly high for such textile compounds. The adhesive compound must be able to withstand the chemical stress caused by the detergent and the high temperatures. This is where our reactive PUR hotmelt adhesives come into play. They offer the highest resistance values and, due to their customizability, ensure economically efficient production processes.

### DISPOSABLE MEDICAL TEXTILES

Disposable medical textiles, such as disposable carrier sheets, are not exposed to chemical or high temperature stresses. Hotmelt pressure-sensitive adhesives are used for this purpose, for example.

### MATTRESS PROTECTION COVERS

Mattress covers fulfill hygienic purposes and also protect the mattress from premature wear. They are mainly used in the accommodation industry and in hospitals and usually consist of a multilayer textile laminate, which contains a membrane and is bonded by the use of reactive PUR hotmelt adhesives. This must not adversely affect the comfort of the mattress and must also be able to withstand long-lasting stressful boil-wash cycles.

Mattress covers for allergy sufferers are particularly in demand. The fine fabric prevents the penetration of dust mites, whose excretions are responsible for house dust allergies. Also in demand are mattress covers with appropriate properties with regard to incontinence. Special materials and production processes are used in the production of such mattress covers. The adhesive must also be suitable across the board.



surgical textiles



mattress covers

## Technical textiles

Technical textiles are used in almost every industry and can be found in many everyday objects. Technical textiles often consist of a multilayer laminate, whose cohesion is ensured by a specially developed adhesive. This adhesive must meet the high demands of the respective application as well as the multi-layer textile production.

### PRODUCTION AND INSTALLATION OF ROOFING UNDERLAYS

#### Production

Roofing underlayments are used in a wide variety of roof constructions. On the one hand, they prevent the penetration of water, and on the other hand, they allow the escape of steam. In this way, they also serve to prevent mold and rot, among other things.

Roof underlays consist of a multilayer textile composite that is laid above the roof insulation. An adhesive with excellent resistance values is required for its manufacture. This is applied by means of an engraving roller, either in dots or diamond-shaped. This also ensures breathability, among other things. Reactive PUR hotmelt adhesives, as well as polyolefin hotmelt adhesives, have proven themselves for these applications. They offer advantages that are extremely relevant for use on a house roof.



roofing underlays

#### Installation

The individual sheets are laid overlapping on the roof and usually fastened by means of nail guns. Adhesive strips applied in advance in the edge area ensure a closed joint transition. These enable fast and clean installation.

### ADHESIVES FOR THE PRODUCTION OF ABRASIVES

There are many different applications for abrasives. They are used as special tools in industrial processes, but are also used as standard products by carpenters or do-it-yourselfers. Typical examples are sandpaper, abrasive belts or attachments for oscillating sanders. Here, high resistance to heat caused by friction or to cooling liquids is required. The adhesive used during manufacture plays a key role in the subsequent function. The abrasive backing typically consists of a multilayer laminate consisting of a textile layer and a grained paper or plastic film. These are bonded together in fully automated manufacturing processes, usually in a roll-to-roll process. In this process, the adhesive is applied to one side and over the entire surface of the individual layers and joined by means of rollers.



abrasive products



## ECO PASSPORT

ECO PASSPORT by OEKO-TEX® is an independent certification system for chemicals, dyes and auxiliaries used in the textile and leather industry. Within a multi-stage process, it is analyzed whether each individual ingredient of the chemical products meets the legal requirements and does not harm human health. Both brands and manufacturers value ECO PASSPORT as a credible proof of sustainable textile and leather production.






Our certified PUR hotmelt adhesives as the basis for your ECO PASSPORT by OEKO-TEX® product certification. Here you will find our certified products:



**ECO  
PASSPORT**  
ZHXA101889  
Testex

OEKO-TEX® Label Check

## Sustainable reactive PUR hotmelt adhesives for textile lamination

Product	ECO Passport by OEKO-TEX®	Viscosity 80 °C [mPa·s]	Viscosity 100 °C [mPa·s]	Viscosity 120 °C [mPa·s]	Substrate			Characteristics/Applications
					textile	membrane film	foam	
701.3.50 			30,000	10,000	x	x	x	Micro-emission, high initial strength, boil wash resistance 95 °C
701.3.70 			35,000	16,000	x		x	Approx. 40 % of recycled raw materials, very high initial strength
701.3.80 	x	35,000	10,000	3,500	x	x	x	Bio-based PUR hotmelt adhesive (25% of the carbon contained comes from biogenic sources), soft textile touch
701.6.50 		16,000	4,000		x	x		Micro-emission, very good for membrane lamination, long open time, soft textile touch
701.8.00 			35,000	15,000	x		x	Lightfast, very high initial strength

## Reactive PUR hotmelt adhesives

Product	ECO Passport by OEKO-TEX®	Viscosity 80 °C [mPa·s]	Viscosity 100 °C [mPa·s]	Viscosity 120 °C [mPa·s]	Substrate			Characteristics/Applications
					textile	membrane film	foam	
640.0	x	7,500			x	x		PTFE membrane, very good hydrolysis and boil-wash resistance, suitable for hot steam sterilization
701.0	x	45,000	8,000	3,000	x	x	x	Excellent universal product with wide adhesion spectrum
701.1.30	x	9,000	3,500	1,500	x	x		Membrane adhesive, long open time, fast crosslinking
701.6	x	10,000	3,500	1,500	x	x		Very good for membrane lamination, long open time, soft textile touch
701.7.30	x	40,000	9,000	3,000	x		x	Very high initial strength, excellent universal product with wide adhesion spectrum, fast crosslinking
701.9	x		35,000	16,000	x		x	Very high initial strength, heavy textiles, very good wash resistance

## Cleaner: melting systems

Product	Color	Packaging	Viscosity	Cleaning properties
761.1	white, granulate	PE-Sack	liquid at 80 °C	Roller cleaning; good mixing with PUR hotmelt; easily wiped off rollers
761.2	blue, meltable block	metal pail	5,000 mPas at 120 °C	Cleaning of melting units, hoses and nozzles; good mixing with PUR hotmelt; neutralises isocyanate reaction
761.7	blue, meltable granules/block	paper bag metal pail cartridges	11,000 mPas at 120 °C	Cleaning of melting units, hoses and nozzles; good mixing with PUR hotmelt; neutralises isocyanate reaction
761.8	white, meltable powder	plastic pail fiber drum	liquid at 80 °C	Roller cleaning; good mixing with PUR hotmelt; easily wiped off rollers

## Cleaner: liquid systems

Product	Color	Packaging	Viscosity at 20 °C	Cleaning properties
822.8	clear	metal can	2 mPas	Removal of cured PUR hotmelt at 70 °C
826.0	clear	metal can	5 mPas	Removal of cured PUR hotmelt up to 180 °C