

# Adhesives for Wood, Furniture and Upholstered Furniture



Jowat product program with adhesives for all established applications in the wood-processing trade:

- · Solid wood bonding
- Surface bonding
- · Foam bonding
- · Edgebanding
- · Assembly bonding







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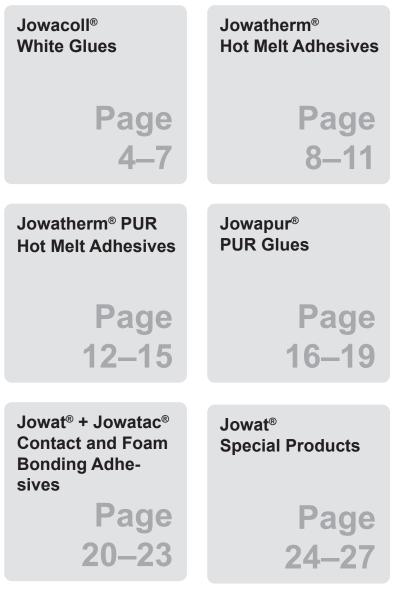
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Kleben erster Klasse First class bonding



# Jowacoll<sup>®</sup> White Glues

Dispersions adhesives are a type of thermoplastic glue. These water-based systems cure in a physical process (drying) when the water evaporates from the bondline and/or is absorbed by the substrate. In the wood industry, they are usually categorized into four durability classes (D1, D2, D3 and D4) in accordance with EN 204 and EN 205, which provide an assessment of how water-resistant the adhesive is. The heat resistance can also be determined in accordance with the standard EN 14257 (previously known as WATT'91). Dispersion adhesives used only in the furniture industry, such as doweling or lacquer glues, are generally not tested according to EN 204/205. PVAc dispersions (polyvinyl acetate) are widely used in the wood industry, by carpenters, and also at home. In the furniture industry, their main applications are veneering, board joints, doweling, frame bonding, or flat lamination with different materials.

### Information

#### Advantages

Dispersion adhesives provide the following advantages in assembly, surface and dowel bonding applications:

- Durability class in accordance with EN 204/205 (D1–D4)
- pH value depending on the requirements
- Setting time depending on the requirements
- Surface glues which do not bleed through the material
- Doweling glues with a clean adhesive cut-off at the nozzle tip

The pressing times were determined using beech wood with a material moisture of 6%-10% and an application amount of 150 g/m<sup>2</sup>. The open assembly time was determined using particleboards laminated with beech veneer and particleboard blocks, at 20°C, 65% relative humidity and 150 g/m<sup>2</sup>. Jowat supplies dispersion adhesives under the wordmark **Jowacoll**<sup>®</sup>.

#### DIN EN 14257 (WATT'91)

The standard EN 14257 (previously called WATT'91) is a testing procedure for determining the heat resistance of white glues. Specimens which have been conditioned for 7 days, are first stored for 1 hour at 80°C and then immediately tested until failure. If the white glue is to be used for mortise and tenon joints in windows, the values measured in the test should not be below 7 N/mm<sup>2</sup>.

Durability class	Applications and climatic conditions
D1	Interior, in which the moisture content of the wood must remain below 15%.
D2	Interior with occasional short-term exposure to water or condensed water, in which the moisture content of the wood must not exceed 18%.
D3	Interior with frequent short-term exposure to water or increased humidity, and exterior not directly exposed to weather.
D4	Interior with frequent and long-term exposure to running or condensed water. Exterior and exposed to weather with adequate surface protection.

# Jowacoll<sup>®</sup> 103.30

Versatile D3/D4 adhesive according to EN 204/205. For moisture-resistant bonding with highest exposure.



# Jowacoll<sup>®</sup> 103.70 Multi-D3<sup>PLUS</sup> "neutral pH"

This innovative D3 glue offers an impressive advantage due to its pH-neutral formulation. No wood discoloring and a broad spectrum of applications.

- "The Innovative One" D3 glue
- Neutral pH—no wood discoloring
- Very easy to use
- Wide range of applications

## Jowacoll<sup>®</sup> 102.50 "2K D4 Glue"

Two-component EPI adhesive with high bonding performance for difficult wood species and extreme exposure. Suitable for outdoor applications.

- EPI
- 2-component high-performance adhesive
- Ideal for bonding applications with direct weather exposure
- Extremely resistant
- For modified wood in particular
- To be processed with the crosslinking agent Jowat<sup>®</sup> 195.60

# Jowacoll<sup>®</sup> 107.20 "1K D4 Glue"

One-of-a-kind adhesive which meets D4 standards without the addition of crosslinking agents.

- 1K D4 glue with high heat resistance (WATT'91)
- No addition of crosslinking agents necessary
- Ready-to-use





# Jowacoll<sup>®</sup> 113.10 "The Fast One"

Super fast binder-versatile assembly glue for hard- and soft-textured wood, and other wood-based materials. For fast pressing procedures with shortest setting time.

- "The Sprinter"
- Super fast assembly glue with short pressing time
- High initial strength
- Ideal for fast pressing procedures

## Jowacoll<sup>®</sup> 124.79 "Surface Glue"

Versatile surface glue, suitable for hot and cold gluing.

- The problem solver for flat surfaces
- Optimized for veneering, prevents bleed through
- Long open time
- Good-natured processing characteristics
- Suitable for hot and cold gluing
- Neutral pH—no wood discoloring
- Very good roller processing characteristics

## Jowacoll<sup>®</sup> 104.20 "Carpenter's Glue"

Easy-to-use classic D2 glue with universal bonding characteristics for all wood gluing applications.

- Versatile carpenter's glue for all wood bonding applications
- Long open time
- Tough glue film
- Excellent final strength
- Meets durability class D2

# **Technical Information: Jowacoll® White Glues**

	Jowacoll <sup>®</sup> 103.30	Jowacoll <sup>®</sup> 103.70 Multi-D3 <sup>pLUS</sup>	Jowacoll® 102.50	Jowacoll® 107.20	Jowacoll <sup>®</sup> 113.10	Jowacoll® 124.79	Jowacoll® 104.20
Durability class	D3 (without crosslinker) D4 (with crosslinker)	D3	D4 (with crosslinker)	D4	D2	D2	D2
Viscosity [mPas] at 20°C	12,500	10,000	11,000	5,000	16,000	19,500	10,500
Open assembly time [min] at 20°C with 150 g/m <sup>2</sup>	9	6	8	10	4	9	9
Minimum pressing time [min] at 150 g/m² at 20°C at 40°C at 60°C	10 7 3	15 10 5	30 15 8	30 15 8	3 2.5 2	15 10 5	15 10 5
pH value	3.0	6.0	7.0	3.0	5.0	6.5	4.5
Consumption [g/m <sup>2</sup> ]	150–200	150–200	150–200	100–200	100–160	100–150	100–160
Color of glue film	colorless	colorless	beige	colorless	colorless	beige	colorless
Packaging	0.5 kg bottle 10 kg pail 25 kg hobbock	10 kg pail 25 kg hobbock	1 kg bottle 10 kg pail	10 kg pail	10 kg pail 25 kg hobbock	10 kg pail 25 kg hobbock	0.5 kg bottle 10 kg pail 25 kg hobbock









# Jowatherm<sup>®</sup> Hot Melt Adhesives

Hot melt adhesives are solvent-free systems which become liquid when heated and are processed in their molten state. To ensure an adequate wetting of the surface, the substrates have to be joined within the indicated open time. As the adhesive cools down, it quickly develops its bonding strength. Hot melt adhesives are setting physically, which means there are no chemical changes occurring in these thermoplastic systems.

Modern hot melt adhesives from Jowat are renowned for their excellent processing properties and a wide range of adhesion to different materials. Short setting times facilitate direct downline processing and thereby high production speeds. Jowat supplies a wide range of products, with high-performance adhesives which provide optimum solutions tailored to the requirements in the different fields of application—including special and complex requirements.

### Information

Chemical basis: Characteristics:	Copolymer based on ethylene and vinyl acetate Good heat resistance, low resistance to
onaracteristics.	,
	solvents and plasticizers
Applications:	Edgebanding, assembly bonding, coating/lamination,
	end-of-line packaging, straw attachment, bookbinding
Supply form:	Granulate, pillows, blocks, drums

#### **Advantages**

Hot melt adhesives offer the following advantages:

- 100% solids content, free of solvents and water
- High manufacturing speeds due to short setting times
- Wide range of adhesion to different materials
- Leveling out of irregularities in the surface
- No uneven surfaces due to trapped moisture
- Elastic bondlines
- Can be used for precoating, because can be reactivated by heating
- Bondline can be opened again by heating (recycling)

#### Colors

Hot melt adhesives are available in the following colors: Transparent/colorless, beige, white, brown, black

#### What are "filled" and "unfilled" hot melt adhesives?

A filler is any ingredient which is nonbonding, for example mineral substances. They influence the color, the processing characteristics and the density of the product. Filled products generally have less residual tack and are therefore easier to remove from surfaces. However, fillers tend to burn and char more quickly inside the glue pot.

Unfilled hot melt adhesives have a density between approx. 1.00 and 1.10 g/cm<sup>3</sup>. Products with no mineral ingredients often have a slightly yellowish to transparent appearance, therefore facilitating nearly invisible bondlines. In addition, these products have smaller application amounts due to their lower density. This in turn, considerably increases the yield of the adhesive and facilitates thinner bondlines.

# Jowatherm<sup>®</sup> 280.50

The "all-rounder"—versatile EVA edgebanding hot melt adhesives with a wide range of applications.



# Jowatherm<sup>®</sup> 280.58 "Edge Universal Clear"

The crystal clear "all-rounder"—versatile EVA edgebanding hot melt adhesive for transparent bondlines.

- High-performance edgebanding hot melt adhesive
- Completely transparent (also in the glue pot)
- No yellow tinge / framing effects on dark decors
- Optimized joint quality (also in signal colors, e.g. red)
- No stringing
- No smearing

## Jowatherm<sup>®</sup> 288.10 "Edge Filled"

Versatile filled EVA edgebanding hot melt adhesive

- Wide range of applications with established edgebanding material
- Low viscosity makes precise application amounts easy
- No stringing
- No smearing
- Also available in white



# Jowatherm<sup>®</sup> 282.20 "Mr. Low Temp Filled"

EVA edgebanding hot melt adhesive, especially for low processing temperatures. Optimally tailored for manual edgebanders.

- Filled edgebanding hot melt adhesive
- Long open time
- Specially developed for low application temperatures
- Very good adhesion to widely used edgebanding materials
- Specially developed for manual edgebanders



# Jowatherm<sup>®</sup> 282.40 "Mr. Low Temp Unfilled"

EVA edgebanding hot melt adhesive, especially for low processing temperatures. Optimally tailored for manual edgebanders.

- Unfilled edgebanding hot melt adhesive
- Very long open time
- Specially developed for low application temperatures
- Excellent adhesion to established edgebanding materials
- Very well suited for manual edgebanders
- Can also be used as assembly adhesive

# Jowatherm<sup>®</sup> 286.30 "HOLZ-HER Cartridge Unfilled"

Versatile unfilled EVA edgebanding hot melt adhesive in cartridges.

- A classic in cartridge form!
- Unfilled and versatile edgebanding hot melt adhesive
- Excellent adhesion to established edgebanding materials
- Also available in white

# Jowatherm<sup>®</sup> 286.60 "HOLZ-HER Cartridge Filled"

Versatile filled EVA edgebanding hot melt adhesive in cartridges.

- Filled version of 286.30
- Versatile hot melt adhesive for HOLZ-HER machines
- Very good adhesion to widely used edgebanding materials
- Also available in white, brown and black

# Technical Information: Jowatherm<sup>®</sup> Hot Melt Adhesives

	Jowatherm <sup>®</sup> 280.50/51	Jowatherm <sup>®</sup> 280.58	Jowatherm <sup>®</sup> 288.10/11	Jowatherm <sup>®</sup> 282.20	Jowatherm <sup>®</sup> 282.40	Jowatherm <sup>®</sup> 286.30/31	Jowatherm <sup>®</sup> 286.60/61 286.82/83
Viscosity [mPas] at medium processing temperature	110,000	110,000	80,000	40,000	45,000	65,000	60,000
Processing temperature [°C]	180–200	180–200	180–200	130–150	130–150	180–200	190–210
Feed speed [m/min] at 150 g/m²	10–75	10–40	10–60	5–20	5–20	not applicable	not applicable
Density [g/m³]	1.14	1.00	1.27	1.31	1.03	1.05	1.30
Yield 1 kg adhesive [meters] on a 19 mm particleboard	up to 270	up to 300	up to 220	up to 220	up to 300	up to 300	up to 220
Appearance	.50 = beige .51 = white	transparent	.10 = beige .11 = white	beige	yellow translu- cent	.30 = yellow translucent .31 = white	.60 = beige .61 = white .82 = brown .83 = black
Packaging	3.0 kg box 25 kg bag	2.0 kg box 25 kg bag	3.0 kg box 25 kg bag	3.0 kg box	3.0 kg box	48 cartridges in a carton (12.2 kg)	48 cartridges in a carton (15.5 kg)









# Jowatherm<sup>®</sup> PUR Hot Melt Adhesives

Reactive hot melt adhesives are being heated prior to processing and then applied in molten state. As the adhesive cools down after it has been applied onto the substrate, it solidifies in a purely physical hardening process that provides the initial bond strength. Water molecules in the substrate and in the ambient air then start to chemically react with the adhesive to form an elastomer. This crosslinking reaction facilitates the high strength and resistance to water, heat and chemicals.

The reactive groups in this type of hot melt adhesive also have a very positive effect on the range of adhesion because they facilitate additional strong (covalent) chemical bonds between the adhesive and suitable reaction partners on the surface of the substrates.

In addition to the reactive hot melt adhesives based on polyurethane and polyolefin available in different forms, Jowat also supplies an unfilled PUR granulate of a new high-performance adhesive—for highest quality and aesthetics.

### Information

Chemical basis:	Polyurethane
Characteristics:	One-component, moisture-curing hot melt adhesives.
	Reactive polyurethane hot melt adhesives have a solids content of 100%,
	and contain neither solvents nor water.
Applications:	Edgebanding, assembly bonding, coating/lamination,
	bookbinding
Supply form:	Granulate, cartridges, cans, hobbocks, drums

#### **Advantages**

- 100% solids content, free of solvents
- Highest resistance to water and water vapor after chemical crosslinking
- Highest heat resistance after chemical crosslinking
- High manufacturing speeds due to short setting times
- Wide range of adhesion to different materials
- Due to low application temperatures, very good results with thermoplastic foils
- Leveling out of irregularities in the surface
- Elastic bondlines

#### **Special characteristics**

Reactive PUR hot melt adhesives react with water molecules and therefore require special moisture-proof containers and special processing equipment.

#### PUR hot melt adhesives without training

Since August 24, 2023, products containing monomer diisocyanate in a concentration of more than 0.1% have been subject to REACH restrictions. They are only allowed to be processed by professional and industrial users, who must have completed a certified safety training prior to processing. Among the products subject to this restriction are also our PUR hot melt adhesives (Jowatherm<sup>®</sup> PUR).

However, our product range **Jowatherm**<sup>®</sup> **PUR MR** provides **alternative adhesives with no training requirement**. The processing characteristics of these products are similar to conventional PUR hot melt adhesives, but they do not require **hazard marking** due to a **reduced monomer content (MR)**. Therefore, this product family is not subject to the same hazardous substance requirements like the comparable conventional PUR hot melt adhesives. Jowat supplies these products in an exclusive granulate form as well as product variants with a filler-free formulation.

# Jowatherm<sup>®</sup> PUR 607.40

## "PU Universal Edge"

PUR edgebanding hot melt adhesive "The good-natured all-rounder"



# Jowatherm<sup>®</sup> PUR 608.00

## "PU Edge High Quality"

The high-end solution for edgebanding. Unfilled PUR edgebanding hot melt adhesive for the most difficult tasks.

#### The premium product for edgebanding

First and only unfilled PUR granulate in the world

Unfilled and therefore colorless, thin bondline

Low energy consumption due to low processing temperature

High yield

Also available in white



# Jowatherm® PUR MR 607.90 "PU Universal; Hazard-Free Labeling"

Monomer-reduced edgebanding hot melt adhesive for wide range of applications

- PUR hot melt adhesive (filled) with hazard-free labeling
- Extremely high initial strength
- Very good-natured processing characteristics
- Available as granulate
- Also available in white

# Jowatherm<sup>®</sup> PUR MR 608.90 "PU Edge High Quality; Hazard-Free Labeling

Unfilled high-end solution for edgebanding.

- PUR hot melt adhesive (unfilled) with hazard-free labeling
- Very good initial strength
- Very good-natured processing characteristics
- Excellent joint quality
- Available as granulate
- Also available in white

## Jowat<sup>®</sup> 930.94 "Flushing Agent for PU Hot Melt Adhesive"

Flushing agent for PUR hot melt adhesives.

- Integrated reaction inhibitor.
- Optimally tailored for PUR edgebanding hot melt adhesives
- Easy to distinct from the adhesive due to red color

# Technical Information: Jowatherm<sup>®</sup> PUR Hot Melt Adhesives

	Jowatherm <sup>®</sup> PUR 607.40/41	Jowatherm <sup>®</sup> PUR 608.00/01	Jowatherm <sup>®</sup> PUR MR 607.90/91	Jowatherm <sup>®</sup> PUR MR 608.90/91	Jowat <sup>⊚</sup> 930.94
Viscosity [mPas] at medium processing temperature	75,000	120,000	105,000	90,000	50,000
Processing temperature [°C]	130–150	100–120	120–140	120–140	130–150
Feed speed [m/min] at 150 g/m <sup>2</sup>	8–40	8–40	8–40	8–40	not applicable
Density [g/m³]	1.36	1.10	1.28	1.10	0.95
Yield 1 kg adhesive [meters] on a 19 mm particleboard	up to 300	up to 370	up to 300	up to 370	
Appearance/color	.40 = beige .41 = white	.00 = yellowish .01 = white	.90 = beige .91 = white	.90 = yellowish .91 = white	red
Packaging	600 g can (granulate) 320 g cartridge (HOLZ-HER) 2.5 kg slug	500 g can (granulate) 260 g cartridge (HOLZ-HER) 2.0kg slug	600 g can (granulate) 2.5 kg slug	500 g can (granulate) 2.0 kg slug	5 kg pail (granulate) 20 kg bag (granulate) 220 g cartridge (HOLZ-HER)





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# Jowapur<sup>®</sup> PUR Glues

One-component, moisture-curing PUR adhesives (1K PUR glues) are adhesives which are liquid or paste-like at room temperature and which do not require heating prior to processing. 1K systems crosslink via a chemical reaction between the adhesive and moisture from the ambient air or the substrates. The reaction with the isocyanate groups (NCO) in the adhesive produces a chemically extremely stable connection (urea bridge) which is responsible for the superior strength of these high-performance adhesives.

The use of PUR glues is increasing, especially for load-bearing glued timber applications, where they provide an alternative to adhesive systems containing formaldehyde. PUR glues are based on flexible formulations and can be adapted to optimally meet specific requirements.

As a certified manufacturer, Jowat supplies products for load-bearing glued timber assemblies as well as for typical workshop applications, e.g. solid wood bonding, the manufacturing of sandwich panels, or universal assembly operations in construction.

### Information

Chemical basis: Characteristics:	Polyurethane The one-component, moisture-curing polyurethane prepolymer adhesives of the Jowapur <sup>®</sup> range crosslink via a reaction with water or ambient humidity. They are free of formaldehyde, have a 100% solids content, requiring lower application amounts compared to other adhesive systems, and	
Applications: Supply form:	cure within a few minutes at room temperature. (Load-bearing) Glued timber, different assembly applications in trades and crafts, outdoor applications, sandwich panels Drums, IBC, cartridges (paste-like), bottles, cannisters	

#### **Advantages**

- For indoor and outdoor applications
- Free of solvents and formaldehyde
- Bonds a wide range of different materials
- Durability class D4 (in accordance with EN 204/205)
- High heat resistance (WATT'91)

#### **Storage conditions**

Reactive components inside the PUR prepolymer adhesive crystallize at temperatures below +5°C, which leads to an increase in viscosity.

The adhesives must not be used after that.

#### **Observe: Training required for products**

Since August 24, 2023, products containing monomer diisocyanate in a concentration of more than 0.1% have been subject to REACH restrictions. They are only allowed to be processed by professional and industrial users, who must have completed a certified safety training prior to processing.

Among the products subject to this restriction are also our PUR glues (Jowapur®).

# Jowapur<sup>®</sup> 687.40

## "1K PU Liquid Premium"

1K PUR adhesive (liquid); The Jowat PowerPUR; For universal assembly applications with long open time

Very good adhesion also to "critical" surfaces (e.g. tropical wood species)

The PowerPUR for almost any applications

Low foaming

Certified for shipbuilding (IMO certification)

Free of solvents and formaldehyde

## Jowapur® 687.22 "1K PU Liquid Universal"

**1K PUR adhesive** (liquid) for a wide range of assembly applications with medium open time.

- Very good adhesion to many materials
- High strength levels
- Free of solvents and formaldehyde

## Jowapur<sup>®</sup> 685.12 "1K PU Liquid Fast"

1K PUR adhesive (liquid) - low flammability - for a wide range of assembly applications.

- Fast PU with pressing times < 30 minutes</p>
- Wheelmark-certified: For the manufacturing of parts with "low flammability"
- Free of solvents and formaldehyde

### Jowapur<sup>®</sup> 681.10 "1K PU Fiber-Reinforced Superfast"

**1K PUR adhesive** (liquid and fiber-reinforced) for load-bearing glued timber and demanding bonding applications.

- Optimized assembly time to pressing time ratio of 1:1 for more efficiency
- Also suitable for non–load-bearing parts
- Fiber-reinforced bondlines
- Joint-filling properties
  Free of solvents and formaldehyde







## Jowapur® 686.20 "1K PU Fiber-Reinforced Fast"

1K PUR adhesive (liquid and fiber-reinforced) for load-bearing glued timber and demanding bonding applications.

- Also suitable for non–load-bearing parts
- Short to medium open time
- Joint-filling properties
- Free of solvents and formaldehyde

# Jowapur<sup>®</sup> 686.60 "1K PU Pasty Comfortable"

**1K PUR adhesive** (liquid and fiber-reinforced) for load-bearing glued timber and demanding bonding applications.

- Also suitable for non–load-bearing parts
- Long open time
- Fiber-reinforced bondlines
- Joint-filling properties
- Free of solvents and formaldehyde

## Jowapur<sup>®</sup> 685.17 "1K PU Pasty Universal"

1K PUR adhesive (pasty) for a wide range of assembly applications

- Versatile adhesives for assembly applications
- Very good adhesion to many surfaces
- Low foaming
- Free of solvents and formaldehyde
- Very high strength

# Technical Information: Jowapur<sup>®</sup> PUR Glues

	Jowapur <sup>®</sup> 687.40	Jowapur <sup>®</sup> 687.22	Jowapur <sup>®</sup> 685.12	Jowapur <sup>®</sup> 681.10	Jowapur® 686.20	Jowapur® 686.60	Jowapur <sup>®</sup> 685.17
Viscosity [mPas] at 20°C	8,000	10,200	6,000	15,500	10,200	10,200	paste-like
Open assembly time [min] at 20°C / 50% rel. humidity	30–40	16–20	8–12	8–10	15–20	45–55	14–16
Minimum pressing time [min] at 20°C at 40°C	105–120 50–60	55–60 25–30	20–30 10–15	10–14 6–8	60–70 35–40	135–160 70–85	45–56 15–20
Color of glue film	light beige	brown transparent	brown transparent	light beige	light beige	light beige	ivory
Foaming	low	heavy	heavy	medium	medium	medium	low
Packaging	0.5 kg bottle	0.5 kg bottle	0.5 kg bottle	0.5 kg bottle	0.5 kg bottle	0.5 kg bottle	365 g (310 ml) cartridge











# Jowat<sup>®</sup> & Jowatac<sup>®</sup> Contact and Foam Bonding Adhesives

In solvent-based adhesives, the bonding substances, also called binding agents, are dissolved in organic solvents. When the liquid material is applied, the solvents evaporate and leave behind only the solid substances of the adhesive, i.e. the bonding components. Solvents are organic, relatively volatile chemicals. In general, they are a mixture of different solvents. They only serve as a transport and processing aid and their purpose is to dissolve the binding agent and maintain it in a liquid, processable form.

Typical solvent-based adhesives have a solids content between 15% and 75%. This means that depending on the product, 25% to 85% of the adhesive are volatile organic compounds, also called VOCs, which are emitted into the environment during processing. That (and the flammability of the solvents) is the reason why Jowat developed systems with a higher solids content, to reduce the emission of solvents: the "High Solid" and "Super High Solid" products of the Jowatac<sup>®</sup> family.

### Information

**Jowat**<sup>®</sup> CR (chloroprene rubber) adhesives are <u>contact adhesives</u> because two seemingly dry adhesive films immediately form a bond when they come into contact with each other and are pressed together. The special advantage of these adhesives is that they provide the immediate initial strength which is often required for the downline processing or for bonding on vertical surfaces.

#### Advantages:

- Versatile, very high initial strength
- Good heat resistance
- Wide range of applications, e.g. rubber/leather, rubber/metal, plastic/metal

**Jowatac**<sup>®</sup> <u>solvent-based adhesives</u> are SC adhesives (styrene copolymer, also called SBS or SIS adhesives), are based on solvent mixtures and are used mainly in bonding applications involving upholstery, flexible foam, nonwovens, textiles, insulation and many other materials. This raw material basis facilitates adhesives with good spraying characteristics and high solids contents, which can be applied to one as well as both bonding surfaces.

### Advantages:

- Very high tack
- Good adhesion to many substrates
- High solids content possible ("High Solid")
- High content of renewable raw materials

The <u>heat resistance</u> is tested in a tensile test using a foam cube. The bonded foam cube is exposed to a continuously increasing temperature. The heat resistance indicates the temperature at which there is still no bondline opening visible.

# Jowat<sup>®</sup> 445.00

## "Contaxa Contact Adhesive"

Solvent-based contact adhesive for universal range of applications;

can be applied by spreading or spraying, contains toluene.

### High yield

Excellent initial adhesion

Very good spreading and spraying

Good resistance to heat and cold



Solvent-based contact adhesive for universal range of applications without toluene.

- Very good initial adhesion
- Suitable for laminates, particleboard and hardboard, textile and felt bonding
- Very good spraying due to low viscosity
- Good resistance to heat and cold

# Jowat<sup>®</sup> 401.10 "Thinner"

Used for thinning contact adhesives and for cleaning hot melt adhesive residues.

- Can be used for thinning contact adhesives (e.g. Jowat<sup>®</sup> 445.00 and 445.20)
- Also suitable for cleaning hot melt adhesive residues

# Jowat<sup>®</sup> 449.50 Contact Adhesive "The Sprayable"

**READY-TO-SPRAY:** Superior contact adhesive in a high-yielding pressurized container for many bonding applications.

- Ready-to-spray: Can be sprayed without time-consuming preparation
- Very efficient: A little goes a long way
- Fine droplets: Accurate and even spray pattern
- Excellent initial adhesion: Bonds immediately and dries fast
- Heat resistance up to 115°C: Wide range of applications
- High creep resistance: Also suitable for bonding contoured materials









### **Contact and Foam Bonding Adhesives**

### Jowatac<sup>®</sup> 456.24 "Foam Bonding Adhesive"

Conventional solvent-based adhesive for the manufacturing of upholstered furniture, low solids content and low viscosity.

- Red color for better visibility of the applied adhesive
- Optimized for spraying (low viscosity)
- For two-sided adhesive application
- Also suitable for expanded polystyrene
- Practically no residual tack

### Jowatac<sup>®</sup> 471.54 "Foam Bonding Adhesive"

Foam bonding adhesive with medium solids content for oneand two-sided adhesive application.

- Universal foam bonding adhesive
- Almost no residual tack
- Medium solids content approx. 50%
- Low odor

## Jowat<sup>®</sup> 403.40 "Thinner"

Thinner for foam bonding adhesives.

- Can be used as thinner for foam-bonding adhesives (e.g. for Jowatac <sup>®</sup> 456.24 or 471.54)

# Technical Information: Jowat<sup>®</sup> Contact and Foam Bonding Adhesives

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	Jowat <sup>®</sup> 445.00	Jowat <sup>®</sup> 445.20	Jowat <sup>®</sup> 449.50	Jowatac <sup>®</sup> 456.24	Jowatac <sup>®</sup> 471.54
Viscosity [mPas] at 20°C	1,300	600	100	225	300
Solids content [%]	24	19	34	38	51
Color	beige	yellow-brown	yellowish	red	red
Material pressure [bar]	1–3	1–3		0.5–3	0.5–3
Spray pressure [bar]	4–6	4–6		4–6	4–6
Nozzle diameter [mm]	1.5–2	1.5		1.5	1.5
Processing	2-sided	2-sided	2-sided	2-sided	1- & 2-sided
Flash-off time [min]	3–10	5–20	2–3	not applicable	not applicable
Open assembly time, 1-sided					1–7 min
Open assembly time, 2-sided	5–20 min	5–20 min	5–30min	0.5–15 min	1–25 min
Heat resistance [°C]	100	100	115	65	55
Packaging	0.6 kg pull-ring can 10 kg canister	0.6 kg pull-ring can 9kg canister	500 ml spray can 22 L pressurized container	0.6 kg pull-ring can 9 kg canister 22 kg hobbock	9 kg canister 22kg hobbock

Very good initial adhesion

- Can be applied to one or both sur-







### **Special Products**



# Jowat<sup>®</sup> Special Products

Unfortunately, there is no one "all-purpose glue" which can meet all requirements in terms of universal resistance (temperature, chemicals, UV radiation, etc.) in combination with the needed processing conditions (liquid, solid, sprayable, etc.). We have therefore separated our products into the following product groups to provide a better overview of the "standard adhesives systems" available:

#### Jowacoll<sup>®</sup> white glues Jowatherm<sup>®</sup> hot melt adhesives Jowatherm<sup>®</sup> PUR hot melt adhesives Jowapur<sup>®</sup> PUR glues Jowatac<sup>®</sup> contact and solvent-based adhesives Cartridges and hot glue guns

In addition, we also supply different adhesive systems which do not match the categories above but which should be readily available in every workshop due to their special characteristics: the special products from Jowat.

Apart from optimum adhesives for your applications, we also provide an assortment of selected application systems for our products. Our product range is rounded off with toothed spatulas for spreading adhesive on surfaces, cartridge guns for our pasty adhesives, and glue guns for hot melt adhesives.

Our hot glue guns are supplied exclusively by Reka Klebetechnik, a company which we have known for decades and the quality and reliability of which we value greatly. We only supply ancillary products of a tested high quality, which are used in our laboratories also or for customer trials.

## Jowat<sup>®</sup> 690.00 Jowat 2K SE Polymer "Extreme Adhesive"

2K SE polymer; The Universal Pro; Construction and assembly adhesive for all purposes.

- Bubble-free curing without shrinking
- Construction and assembly adhesive for all purposes
- Permanently elastic and resistant to 140°C after complete curing
- Unlimited joint-filling properties
- Suitable for metals, plastics, compact laminates, and many more
- Free of plasticizers, isocyanates and solvents
- Problem solver for uncommon materials
- Flowable, therefore also suitable for surface bonding

## Jowat<sup>®</sup> 950.20 "UF Resin"

The hot pressing glue for veneering (UF resin).

- Ideal for veneering wood-based boards
- High resistance of the glue against bleeding through the material
- Dissolves easily, ready to use
- Low formaldehyde emission
- Very good bonding quality (class I)
- Approved for toys



### Jowat<sup>®</sup> 975.30 "Superglue Rapid"

Fast-drying and precisely dosable universal instant adhesive with very good flow and adhesion properties.

- High final strength: tension-free and vibration-resistant
- Fast setting: holds together in no time
- Low viscosity: pours into the smallest spaces
- Convenient flow valve: facilitates adhesive application with pinpoint accuracy
- Colorless: transparent and not noticeable after use
- Finishing: can be sanded, cut, etc. after curing

# Jowat<sup>®</sup> 900.00 "Release Agent"

Release agent for flat presses.

- Very easy to apply
- Extreme yield
- Also suitable as lubricant for work benches, not for lovemaking!
- Outstanding antistick and lubricant properties



## Jowat<sup>®</sup> 407.50 "Hand and Universal Cleaner"

First-class hand cleaner.

- Specially developed for very dirty hands
- Hygienic and gentle on the skin
- Free of silicones
- Free of abrasive additives

# Novoryt<sup>®</sup> Woody Correct Melting Putty

Innovative repair putty from Novoryt<sup>®</sup> for fixing moderate defects such as holes, scratches or tears on surfaces.

- Wide assortment of colors: choose or combine any of 20 different colors
- Starter kit available, incl. cordless melter and useful accessories in a handy case
- Medium to high hardness: solid at room temperature after processing, but elastic
- Outstanding adhesion: holds even on vertical corners and edges
- Controlled flowing: easy to apply on defects
- Weather-resistant and high strength: can be used also in outdoor applications



# Cartridge Guns

The right solution for every application.

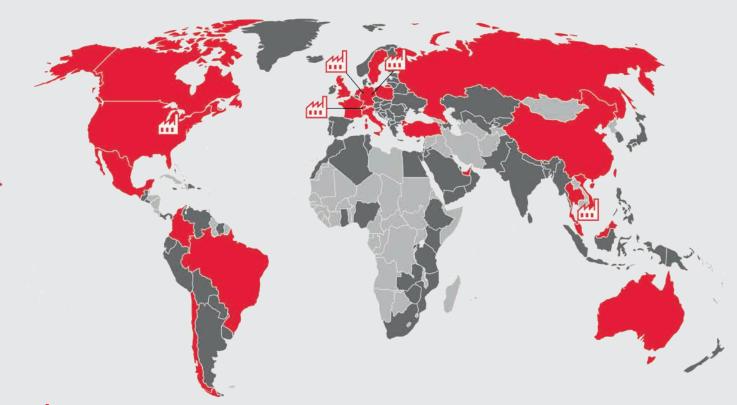


# **Reka Hot Glue Guns + Accessories**

Caution, hot!



# Jowat | Unsere Versprechen halten Jowat | Our Word is Our Bond



Manufacturing locations
Markets with companies of the Jowat Group
Markets with Jowat distribution partners



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Your local distributor:



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