

PU Dispersion

Application: Lamination adhesive for the manufacture of three-dimensional coated parts for vehicle interiors with thermoplastic foils (e.g. plasticized PVC foam foils) in vacuum deepdrawing methods.
The properties of the bonded parts and the surfaces of the substrates (including primer coating on the reverse side or other surface pretreatment) have to undergo application-related testing prior to use.

Based on: Adhesive dispersion: mixture of synthetic plastic dispersions
Crosslinking agent: e.g. crosslinker Jowat® 197.65 or another crosslinker of the product range 197.xx

Type: Two-component laminating and deepdrawing adhesive. Can be reactivated by heat.

Typical Key Data/ Directions for Use: Addition of crosslinking agent:
In order to meet the required quality standards of the automotive industry, it is imperative to process the adhesive mixed with a crosslinking agent. The quantity of the crosslinking agent depends on the materials to be bonded and the requirements for the bonding.
The crosslinking agent is to be added slowly, in a fine stream, under constant stirring. Stirring too fast may cause foaming and must be avoided.

Before a further processing by spraying, it is recommended that you filter the adhesive through a coarse filter (400 – 1,000 µm) to remove any possibly dry residues.

Caution: Containers that have been used to mix the crosslinking agent with the dispersion may not be tightly closed (they may burst due to formation of CO₂).

Adhesive application:
In general, the adhesive is applied to one surface by spraying onto the carrier part. When textiles are involved, the additional application of a small quantity of adhesive to the textile may be advantageous.

Application amount:
70 – 100 g/m² wet application. The exact quantity of average consumption can only be determined by extensive trials in the field.

Pot life:
At 20 °C with e.g. 5 % Jowat®
Crosslinking Agent 197.65 [h]: approx. 4 – 8
(shorter at higher temperatures)

Tack time:
Laminating is to be carried out within the first 2 – 4 hours after adhesive application, depending on the type of crosslinking agent, processing concentration and storage conditions.

continued on page 2

04/22 All data indicated are characteristics represented as average values. Our technical data sheets are periodically revised to represent the latest state of technology. This edition is replacing and superseding all previous ones, and is valid on the date of compilation.
Please refer to the last page of this technical data sheet for additional information.



The processing characteristics may vary depending on the application technology, which can affect the bonding process.

Customer trials are required.

The temperature inside the glueline is decisive for the bonding result.

Minimum reactivation temperature
inside the glueline [°C]: ≥ 60
(depending on the pressure and time in the press)

Preheating of molded parts up to approx. 40 °C has been advantageous in many cases.

We recommend that all materials coming into contact with the glue are made of high-quality stainless steel (German standard V2A according to DIN EN 10027 – W-No. 1.4301 or better quality) or of inert plastics, e.g. Teflon, PP, polyamide. Avoid contact with other metals like zinc, brass, copper or aluminum. For more information, please contact the equipment manufacturer or our technical service.

Minimum processing temperature for
materials, adhesive and ambient air [°C]: 15 (not identical with MFFT)
Appearance: opaque

Key data measured according Jowat test methods.

**Requirements
for a
High-Quality
Bonding
Process:**

The properties (e.g. surface tension, plasticizer content...) and the conditioning of the substrates, as well as the processing conditions (e.g. ambient temperature, humidity...) will influence the processes of joining and bonding. Customer tests under consideration of everyday production conditions are therefore absolutely necessary to define stable process parameters and to ensure that the product is fit for purpose. For best bonding results, the materials to be bonded should be free of dust, oil, and grease, and be dry. Ideally, the minimum temperature should be at 18 °C. Avoid draft. Materials which have cooled down too far must be stored for approx. 24 hours before use in a warm room at 15 – 25 °C.

Our Application Technology Department and our Application Specialists will provide technical data to assist you in your choice of an appropriate product for your requirements. Please observe the information in the section "Remarks."
As a suggestion on how to establish high-quality bonding processes, please refer to DIN 2304.

Specification:	Viscosity at 25 °C [mPas]:	305 ± 100
	(Haake, RV, D=330 1/s)	
	Density at 20 °C [g/cm ³]:	1.06 ± 0.02
	(pycnometer, 100 ml)	
	Solids content, 1 h at 125 °C [%]:	46.0 ± 2.0
(Jowat test method)		
pH value at 20 °C:	7.0 ± 1.0	
(Jowat test method)		

The above-mentioned values refer to the dispersion without added crosslinker. The values are always determined on the date of production.

- Crosslinking Agent:** To achieve optimum properties, add 4 – 10 % by weight of Jowat® Crosslinking Agent 197.65, depending on the type of application.
- Cleaning:** Machines and equipment may be cleaned after use with cold or warm water, using Jowat® Cleaner Concentrate 192.40.
- Safety Considerations:** In case of spray application: do not inhale the atomized material.
Observe the safety data sheet.
Especially when using open application machinery, exhaust and ventilation systems are required.
- Storage:** The product should remain stored in properly closed original containers, dry and cool (15 – 20 °C).
Lower temperatures between 6 °C and 14 °C are permissible during transport, for a max. duration of 14 days. Verify and document the temperature when the goods are received.
Before processing, the adhesive has to be conditioned by storing at 15 – 25 °C.
For best-before date, please see container label.
After the elapse of the best-before date, it is essential that you again verify that the product is fit for your intended application.
- Packaging:** Information about packaging types and units is available upon request.
- Remarks:** **For further information concerning safety, handling, transport and disposal, please refer to the safety data sheet.**
The information on this data sheet is based on test results from our laboratories as well as on reported experience gained in the field by our customers. It can, however, not cover all parameters for each specific application and is therefore not binding upon Jowat, nor should it be relied upon in lieu of your own required testing. The information given in this leaflet does not represent a performance guarantee. Unless otherwise agreed with our customers, the values stated in the section "Specification" shall be regarded as the finally agreed upon product properties. No liability may be derived from the information contained herein nor from the information provided by our free technical advisory service.

Jowat Information

Gluing as one of the most efficient methods of bonding is constantly gaining importance and expanding into new areas of application. At the same time, the number of substrates to be bonded is also growing at an unprecedented rate. New methods and equipment to process adhesives are developed.

The in-house R & D departments of Jowat are responding with intensive efforts to keep pace with these constant changes. A highly qualified team of chemists and engineers is using the latest techniques and brightest ideas to provide the utmost in advice our customers and to make sure that they get the adhesive which meets their needs.

Our information is based on test results from our laboratories as well as on experience gained in the field by our customers. This advice, however, cannot cover all eventualities for each specific application and as such is not binding for us. Please, contact our technical service department in each case to find out what the actual technical state of development for the respective product is, and request the latest data sheet. Any use of our product without this precautionary measure would be your sole responsibility.

The processing company itself must therefore test the adhesives manufactured by us for suitability in each individual case. This applies to the first use of a sample as well as to modifications during an ongoing production.

We are therefore requesting all our new customers to test our adhesives for suitability on original parts at conditions equal to normal processing conditions. The bond has then to be subjected to the actual stress which it would undergo when in use and has to be assessed. This test is absolutely necessary.

Customers who undertake modifications during a running production are requested to pass this information on to us. Please notify us when machines are set to new parameters as well as when the substrates to be bonded are changed. Only then will Jowat be able to provide our most up-to-date information to the processor using our adhesives.

The information given in this leaflet is based on practical experience and on results of tests in our laboratory, and does in no way constitute any guarantee of properties. No liability may be derived from these indications nor from the recommendations made by our technical advisory service.