

**PU Dispersion**

**Application:** Jowapur® 158.97 is a quickly curing PU dispersion used for bonding soft PVC foam foils in vacuum deepdrawing methods to formed parts made of fibreboard compounds and plastics (for instance of ABS and ABS blends).  
Jowapur® 158.97 is mainly used for the production of laminated interior parts for vehicles (such as door- and sidelinings and driver seat rear panels).

**Basis:** a) Adhesive: Mixture of synthetic dispersions  
b) Crosslinking agent: Jowat® Crosslinking Agent 197.65 or another crosslinker from the 197.xx series

**Description:** Two component laminating and deepdrawing adhesive, reactivated by heat.

**Directions for Use:** Processing temperature:  
Optimum processing temperature of the adhesive mix and of the parts to be bonded is between 18 and 25 °C. Parts which have cooled down too far must be stored for approx. 24 hours before use in a warm room.

**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 aluminium. For more information, contact the equipment manufacturer or our technical service.**

Addition of crosslinking agent:

In order to achieve the required quality standards of the automotive industry, it is essential to use Jowapur® 158.97 with a crosslinking agent. The quantity of the crosslinking agent depends on the materials to be bonded and the required properties of the laminated parts. In general, 5 – 10 % of Jowat® Crosslinking Agent from the 197.xx product series are added to 100 ppw of dispersion.

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 the use in spraying equipment, it is recommended to strain the adhesive with a wide-meshed filter (400 – 1,000 µm) to remove dried adhesive skin that might have formed.

**Once opened, remaining amounts of crosslinking agent in the container can no longer be used and must undergo disposal.**

Application:

Adhesive is applied generally onto the substrate only. When textiles are involved, the additional application of a small quantity of adhesive to the textile may be advantageous.

Application method:

Spraying.

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**08/20** 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.**

**Jowat**   
Klebstoffe

**Coating weight:**

70 – 100 g/m<sup>2</sup> wet application. The exact quantity of average consumption can only be determined by extensive field trials. The values are based on in-house lab testing and are therefore not binding.

**Pot life:**

At 20 °C with 5 %

Jowat® Crosslinker 197.65 [h]:                      approx. 4 – 8 (shorter in relation to increased temperatures)

**Drying time:**

Depending on the substrate and coating weight. In general approx. 30 minutes at room temperature or a few minutes at 40 – 60 °C in a drying channel. The temperature of the object should not surpass 40 °C.

**Open tack time:**

The open time is approx. 2 – 4 hours, depending on crosslinking agent, mixing ratio and storage temperature.

**Bonding conditions:**

The temperature in the bondline is most essential with regard to the quality of the bonding. The minimum reactivating temperature for Jowapur® 158.97 is 60 °C. Preheating of the substrate up to approx. 40 °C has been advantageous in many cases.

Min. temp. for materials,  
glue and ambient air [°C]:

15 (not identical with minimum  
film-forming temperature)

Appearance:

opaque

Density at 20 °C [g/cm<sup>3</sup>]:

approx. 1.06 ± 0.02 (Jowat test method)

**Specification:**

Viscosity at 25 °C [mPas]:  
(Haake, RV, D=330, 1/s)

305 ± 100

Solids content, 2 h at 90 °C [%]:  
(Jowat test method)

46 ± 2

pH value at 20 °C:  
(Jowat test method)

7.0 ± 1.0

The values are always determined on the date of production.

**Crosslinking agent:**

To achieve optimum properties, an addition of 4 – 10 % by weight of Jowat® Crosslinking Agent 197.65 is required, depending on the application.

**Thinner/  
Cleaner:**

Water.

**Storage:** The product should remain stored in properly closed original containers, dry and cool (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. During transport, the temperatures may be lower, from 6 °C to 14 °C. The material may be exposed to these temperatures for a max. duration of 14 days. If in doubt, the temperature needs to be checked in goods entry. Cold material may not be processed, but must be previously warmed up slowly by storage at 15 – 25 °C (exposure over 2 to 3 days, depending on the volume of the packaging unit).

**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.