PVAc D4 glue with 5 % Jowat® Hardener 195.35

Application:
For all bondings requiring increased resistance to humid environments, e.g. doors, windows and furniture in high-humidity areas. General-purpose glue for bonding hard as well as soft wood species, as well as for particleboard and other wood substrates and for high frequency bonding.

Characteristics/Directions for Use:
When used correctly, the glue will meet the durability class D4 according to EN 204/205 and the EN 14257 (WATT ‘91) > 7.0 N/mm² (tested by the ift in Rosenheim/Germany). Without hardener, the glue will meet the durability class D2 according to EN 204/205.

We recommend that all materials coming into contact with the glue are made of high-quality stainless steel (German standard V4A according to DIN EN 10027 – W-No. 1.4571 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.

For all standard application systems. Mix glue and hardener before processing until homogenous.

During storage, the viscosity of the product may increase due to chemical reactions of the ingredients that cannot be influenced. Higher storage temperatures promote that increase in viscosity. We therefore recommend using a suitable tool to stir the product before use. This reduces the viscosity.

The different composition of the wood ingredients, depending on e.g. the wood species, origin, logging time, and treatment, may lead to (possibly delayed) discolouring. For instance, due to the reaction between iron and tannic acid.

Minimum temperature for materials, glue, and room air [°C]: 15 (not identical with minimum film-forming temperature, MFFT)

MFFT with hardener [°C]: approx. 5 ± 1 (Jowat test method)

Pot life: after addition of hardener approx. 5 days

Appearance of the glue film: transparent

Classification according to EN 204*: D2 without hardener, D4 with 5 % Jowat® Hardener 195.35

Density at 20 °C [g/cm³]: approx. 1.04 ± 0.05 (Jowat test method)

Application amount [g/m²]: approx. 175 ± 25

Glue application: one- or two-sided

Open assembly time at RT [min]: approx. 8.5 ± 1.5 (Jowat test method) > 0.5

Pressure [N/mm²]:

Minimum pressing time at RT [min]: approx. 30

* The data indicated above was determined at 6 – 10 % wood moisture following EN 204/205 (20 °C / 65 % RH), with a glue application of approx. 150 g/m².

Pressing is shorter when the temperatures are higher, for instance when high frequency machines are used, or in heated interval presses.

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When bonding in high frequency machines, the pressing duration depends on the bonded surface and the generator power. The time is a combined factor of HF time and subsequent pressing time. These may vary from unit to unit, from 30 to 120 seconds. In each case, the data have to be determined by preliminary testing on the individual machine. The pressing time has to be longer depending on the wood species used.

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”.

**Specification:**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity at 20 °C [mPas]</td>
<td>7,000 ± 500</td>
</tr>
<tr>
<td>(Brookfield, RV, spindle 4, 20 rpm)</td>
<td></td>
</tr>
<tr>
<td>Solids content, 2 h at 90 °C [%]</td>
<td>50 ± 2</td>
</tr>
<tr>
<td>(Jowat test method)</td>
<td></td>
</tr>
<tr>
<td>pH value at 20 °C</td>
<td>5.4 ± 0.1</td>
</tr>
<tr>
<td>(Jowat test method)</td>
<td></td>
</tr>
</tbody>
</table>

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

**Cleaning:**

Machines and equipment may be cleaned after use with warm or cold water, using Jowat® Cleaner Concentrate 192.40.

**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. Protect from frost!

**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.