

## For processing with Jowat® Crosslinking Agent 195.60

# 102.49

**Application:** Copolymer dispersion for bonding hard wood species (oak, beech), species with high resin content: (pine), tropical wood species (teak, meranti), and wood with moisture content up to 15 %.  
For assemblies exposed to direct weathering, with adequate surface protection, e.g. for window frames or formwork panels.

**Characteristics/ Directions for Use:** Jowacoll® EPI 102.49 has to be processed with Jowat® Crosslinker 195.60. Very high water resistance, temperature resistance, mechanical strength, very good joint-filling properties, relatively resistant to solvents, excellent long term resistance. 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/mm<sup>2</sup> (tested by the ift in Rosenheim/Germany).

**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.**

### Mixing ratio:

Jowacoll® EPI 102.49 with Jowat® Crosslinking Agent 195.60 = 100 : 15 ppw  
The product must be stirred before use. The mixing has to be carried out very thoroughly; if the quantities are high, use of a feeding-mixing unit is recommended. For all standard application systems, like brush, spatula, nozzle, doctor blade, wheel, or roller.  
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.

**After mixing with the Jowat® Crosslinking Agent 195.60, do not close the containers tightly, since they may burst due to formation of CO<sub>2</sub>.**

Minimum temperature for materials, glue, and room air [°C]:	15 (not identical with minimum film-forming temperature)
Min. film-forming temperature [°C]:	approx. 5 ± 1 (Jowat test method)
Appearance of the glue film:	beige
Classification according to EN 204*:	D4 with Jowat® Crosslinker 195.60
Density at 20 °C [g/cm <sup>3</sup> ]:	approx. 1.5 ± 0.05 (Jowat test method)
Pot life (dep. on how well the product was stirred) [h]:	up to 2
Application amount [g/m <sup>2</sup> ]:	approx. 175 ± 25
Glue application:	one-sided
for high requirements:	two-sided
Open assembly time at RT [min]:	approx. 10 ± 2 (Jowat test method)
Pressure [N/mm <sup>2</sup> ]:	≥ 0.5
Minimum pressing time at RT [min]:	approx. 30

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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

Longer pressing times will result in higher strength, according to all test methods.

\* 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/m<sup>2</sup>. The crosslinker may not come into contact with water or moisture, otherwise it will cure prematurely.

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”.

<b>Specification:</b>	Viscosity at 20 °C [mPas]:	11,000 ± 2,000
	(Brookfield, RV, spindle 5, 20 rpm)	
	Solids content, 2 h at 90 °C [%]:	60 ± 2
	(Jowat test method)	
	pH value at 20 °C:	7.0 ± 0.5
	(Jowat test method)	

The values are always determined on the date of production.

**Cleaning:** Machines and equipment may be cleaned after use of the **mixed components** with warm or cold water, using Jowat® Cleaner Concentrate 192.40. Parts soiled **with crosslinking agent** are to be cleaned with Jowat® Thinner 401.40. Cured mix of adhesive and crosslinker can only be cleaned mechanically.

**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. 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.