

Contact Adhesive

Application: Jowat® 449.50 is a fine spray adhesive for permanent bonding of materials where immediate bond strength, water resistance and high heat resistance are required. It is used for bonding HPL, hard plastics, GRP, foams and fabrics to a variety of substrates including MDF, chipboard, plywood and many other timber sheet materials. Jowat® 449.50 can also be used for bonding sheet metals where surface preparation is very important.

Customer trials are required.

The properties of the bonded parts and, where necessary, the primer coating on the reverse side of the materials have to undergo application-related testing prior to use.

Typical Key Data/ Good heat resistance (up to 115 °C). High solids content. Non-chlorinated
Directions adhesive.
for Use:

This product is designed to be applied to two surfaces to be bonded together. For best results, the temperature of the adhesive and the surfaces being bonded should be between 15 – 25 °C.

Use with adequate ventilation. When possible we recommend shaking the canister well before using. Attach and secure hose tightly onto the spray gun with required tip. Attach the other end of the hose onto the canister. Make sure the hose-valve connections are securely tight. Open the valve on the canister slowly and fully, check for leaks during this process. Unlock the trigger on the spray gun to start spraying.

Prior to use, check compatibility by spraying a small test patch of the adhesive on the substrate. This product may degrade some substrates. Spray about 10 – 20 cm away at a 90 degree angle to the surface, applying a uniform, even coat of adhesive to obtain 80 to 100 % coverage of the surface. If necessary, spray another coat of adhesive in areas that appear to need more adhesive. Spray both surfaces to be bonded, one surface vertically and the other surface horizontally. Allow the adhesive to tack off until no adhesive transfers to the knuckle when touched.

Adhere surfaces and press together with adequate pressure. A roller is recommended to apply a uniform pressure to achieve maximum strength. Allow 24 hours for the adhesive to fully cure.

If the spray tip clogs, unscrew the spray tip from the gun and clean with solvent such as lacquer thinner or acetone. Do not use a pin on the spray tip orifice.

Special precautions

For optimum results store canister above 18 °C during use. Storage and processing temperatures below 10 °C must be prevented at all times.

Allow substrates to acclimatise to normal room temperature (18 °C) before bonding. Do not exceed open time of the adhesive. Keep canister off cold concrete floors during use. If adhesive is expelled wet or as a jet, canister is too cold – move to warm environment and allow to thoroughly acclimatize before reusing.

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08/24 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.

If you choose to leave the hose and spray gun on the canister, leave the valve on the canister open. Do not disconnect the hose/gun from the canister. Close and lock the spray gun. Before connecting the hose and gun to a new canister, first turn the valve on the canister into the off position. Then spray out remaining adhesive left in the hose, lock the spray gun, disconnect the hose and spray gun from the canister, immediately connect to the new canister and open the valve.

Caution

Use only in well ventilated areas.
DO NOT thin or reactivate with solvents.
DO NOT incinerate.
DO NOT expose to extreme heat over 50 °C.
Keep away from sources of ignition.
Release pressure before disconnecting hose.

Test for suitability before use.

Viscosity [mPas]:	approx. 250
Solids content [%]:	approx. 30
System flammability:	flammable adhesive in flammable propellant
Drying time [min]:	approx. 2 – 3 (depending on temperature and humidity)
Open time [min]:	approx. 30

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."

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 the 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. Avoid draft. 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.

Cleaning: Jowat® Cleaner 401.10.

Safety Observe the safety data sheet.

Considerations: Especially when using open application machinery, exhaust and ventilation systems are required.

Storage: Consult Material Safety Data Sheet prior to use.
DO NOT store at temperatures over 50 °C.
Avoid exposure to direct sunlight.
DO NOT store directly on concrete floor.
Do not store below 10 °C. Standard storage temperatures 15 – 25 °C.
After the elapse of the best-before date, it is essential that you again verify that the product is fit for your intended application.
When connected, keep valve open and hose pressurised at all times.
DO NOT close valve until ready to connect to new cylinder.
Release pressure in hose before disconnecting.

Packaging: Single-use canister (22 L) suitable for industrial use only.
Caution: Pressurized packaging.

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.