

### Hot Melt

**Application:** **Packaging processes**  
For bonding e.g. cartons, trays and folding boxes, as well as for bonding straws to beverage cartons.  
The properties of the bonded parts and, where necessary, the surfaces of the materials have to undergo application-related testing prior to use.

**Directions for Use:** The adhesive granulate can be processed using automatic feed systems. In that case, the temperature should not exceed 30 °C.  
Different types of hot melt adhesives may be incompatible with each other depending on the formulation. Therefore, we recommend to carefully clean the application equipment when changing the product. Further information is available upon request.  
Application amounts that are too low can have a negative impact on the quality of the bond. Therefore, the width of the compressed adhesive bead should not be less than 8 mm on corrugated cardboard packaging (corresponds to an application amount of approx. 1.5 g/m) and not less than 6 mm on cardboard and paper packaging (corresponds to an application amount of approx. 1.0 g/m). The processing characteristics may vary depending on the application technology, which can affect the bonding process.  
**Customer trials are required.**  
A declaration concerning the food contact status of the product is available upon request.

**Typical Key Data:**

Processing temperature [°C]:	140 – 180
Appearance:	white, translucent melt
Density at 20 °C [g/cm³]:	approx. 0.96 ± 0.03
Softening point [°C]:	approx. 110 ± 5 (Ring and Ball)
Open time at 160 °C [s]*:	approx. 10 ± 1
Setting time at 160 °C [s]*:	approx. 0.7 ± 0.2

\* Measured on a hot melt bead, 2 mm Ø.  
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.  
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 160 °C [mPas]: 1,100 ± 250  
(Brookfield, plate-cone No 7, 100 rpm)

The values are always determined on the date of production.

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11/21 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.**

**Cleaning:** Preliminary mechanical cleaning while hot (e.g. with a suitable spatula which does not damage the unit). Remove any residues in the application environment when cold using Jowat® Cleaner 402.40.

**Safety Considerations:** Like all hot liquids, this product can cause severe burns in the molten state. Please take appropriate precautions to prevent the hot adhesive from coming into contact with the skin (e.g. by wearing appropriate protective gloves). If this does happen, cool the affected area immediately with plenty of cold water. Do not try to remove the adhesive from the skin. Seek medical attention.

Hot melt adhesives with hazard-free labeling may release vapors when processed. It is recommended not to exceed the indicated processing temperature, to keep the formation of vapors as low as possible. Extraction and ventilation are recommended especially if an open application system is used.

**Storage:** The product should remain stored in closed original containers, dry and cool. 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.