



Portfolio Information

# Adhesive Portfolio for the Food and Consumer Goods Industry



Bonding Cartons, Cases, Trays

Beverage Carton Applications

Inline Labeling

Pallet Stabilisation

Our Word is Our Bond

**Jowat**  
Adhesives





# Leading-edge Adhesive Technology for the Food, Beverage and Consumer Goods Industries

Be it primary or secondary packaging, from paper wraps to cartons, trays and cases, beverage cartons, labels or pallet securing – the requirements for packaging processes are rising rapidly. Clean, energy-efficient and sustainable solutions are increasingly demanded in the industry – including in the development and application of adhesives.

Modern **Jowat** adhesives play a major role in facilitating highly efficient processes as expected by processors. **Jowat** adhesives have been established for many years in the different packaging processes and are highly valued by customers due to major economic benefits, such as reduced application amounts, minimized maintenance and less down times. **Jowat-Toptherm®** and **Jowatherm®** adhesives show an excellent performance in very demanding processes mastering fastest line speeds, extreme temperatures or difficult surfaces.

About half of all packaging manufactured worldwide comes into contact with food. Food safety has therefore always been a major focus of Jowat – from using suitable raw materials, meeting strict guidelines, as well as supporting our customers to ensure food safety compliance. Jowat understands the challenges in the industry and provides the expertise necessary to meet the high requirements.

No matter what the requirements are in your packaging process, the modern adhesive products from **Jowat** provide a suitable solution for your application. Our permanent focus is to facilitate optimised manufacturing conditions and to meet the customer expectations in the best possible way.



## Jowat | Our Word is Our Bond

- Most **helpful** adhesive company
- Comprehensive **technical service** plus support in **food safety**
- Specialized in **end-of-line packaging** applications
- Trusted **global** supplier to well-known **brands**
- **100** year old family-owned enterprise
- **1,200** employees | **6** plants in 5 countries on 4 continents | **23** subsidiaries

Bonding of Trays, Cartons and Cases

|   | <div>EFFICIENT<br/>ALLROUNDER</div> <div>Jowat-Toptherm®<br/>256.40</div> | <div>HEAVY DUTY<br/>ALLROUNDER</div> <div>Jowat-Toptherm®<br/>850.60</div> | <div>DEEP<br/>FREEZE</div> <div>Jowat-Toptherm®<br/>256.00</div> | <div>PROBLEM<br/>SOLVER</div> <div>Jowat-Toptherm®<br/>850.70</div> | <div>BIODEBASED &amp;<br/>CLEAN</div> <div>Jowatherm® GROW<br/>853.40</div> |
|---|---|--|--|---|---|
| Viscosity [mPas]                                | ~ 1,050<br>at 160 °C (320 °F)   | ~ 1,200<br>at 160 °C (320 °F)  | ~ 1,460<br>at 160 °C (320 °F)                                    | ~ 1,600<br>at 160 °C (320 °F)                                       | ~ 1,375<br>at 120 °C (248 °F)   |
| Processing Temperature [°C]                     | 140 - 180 °C<br>(284 - 356 °F)  | 160 - 180 °C<br>(320 - 356 °F)   | 140 - 170 °C<br>(284 - 338 °F)                                   | 160 - 180 °C<br>(320 - 356 °F)                                      | 120 - 140 °C<br>(248 - 284 °F)  |
| Open Time [s]                                   | ~ 5   | ~ 8  | ~ 12   | ~ 7   | ~ 6   |
| Short Pressing Times &<br>High Restoring Forces | <div><div></div><div></div><div></div></div>                              | <div><div></div><div></div><div></div></div>                               | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                        | <div><div></div><div></div><div></div></div>                                |
| Low Maintenance & Cleaning                      | <div><div></div><div></div><div></div></div>                              | <div><div></div><div></div><div></div></div>                               | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                        | <div><div></div><div></div><div></div></div>                                |
| Demanding Surfaces                              | <div><div></div><div></div><div></div></div>                              | <div><div></div><div></div><div></div></div>                               | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                        | <div><div></div><div></div><div></div></div>                                |
| Heat Resistance                                 | <div><div></div><div></div><div></div></div>                              | <div><div></div><div></div><div></div></div>                               | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                        | <div><div></div><div></div><div></div></div>                                |
| Cold Resistance                                 | <div><div></div><div></div><div></div></div>                              | <div><div></div><div></div><div></div></div>                               | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                        | <div><div></div><div></div><div></div></div>                                |
| Environmental Benefits                          | <div><div></div><div></div><div></div></div>                              | <div><div></div><div></div><div></div></div>                               | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                        | <div><div></div><div></div><div></div></div>                                |
| Food Safety Compliance                          | FDA 175.105   | FDA 175.105  | FDA 175.105  | FDA 175.105   | FDA 175.105   |

Bonding of Trays, Cartons and Cases

|   | <div>BASIC<br/>ALLROUNDER</div> <div>Jowatherm®<br/>259.20</div> | <div>CLEAN<br/>RUNNER</div> <div>Jowatherm®<br/>857.40</div> | <div>ENERGY<br/>EFFICIENT</div> <div>Jowatherm®<br/>858.40</div> | <div>FAST &amp;<br/>HOT</div> <div>Jowatherm®<br/>856.70</div> | <div>AGRICULTURAL<br/>TRAYS</div> <div>Jowatherm®<br/>856.40</div> |
|---|--|--|--|--|--|
| Viscosity [mPas]                                | ~ 1,450<br>at 160 °C (320 °F)                                    | ~ 1,700<br>at 160 °C (320 °F)                                | ~ 1,375<br>at 120 °C (248 °F)                                    | ~ 1,750<br>at 160 °C (320 °F)                                  | ~ 1,450<br>at 190 °C (374 °F)                                      |
| Processing Temperature [°C]                     | 150 - 180 °C<br>(302 - 356 °F)                                   | 150 - 180 °C<br>(302 - 356 °F)                               | 120 - 140 °C<br>(248 - 284 °F)                                   | 160 - 180 °C<br>(320 - 356 °F)                                 | 160 - 190 °C<br>(320 - 374 °F)                                     |
| Open Time [s]                                   | ~ 7  | ~ 8  | ~ 6  | ~ 3  | ~ 14   |
| Short Pressing Times &<br>High Restoring Forces | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                 | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                   | <div><div></div><div></div><div></div></div>                       |
| Low Maintenance & Cleaning                      | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                 | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                   | <div><div></div><div></div><div></div></div>                       |
| Demanding Surfaces                              | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                 | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                   | <div><div></div><div></div><div></div></div>                       |
| Heat Resistance                                 | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                 | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                   | <div><div></div><div></div><div></div></div>                       |
| Cold Resistance                                 | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                 | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                   | <div><div></div><div></div><div></div></div>                       |
| Environmental Benefits                          | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                 | <div><div></div><div></div><div></div></div>                     | <div><div></div><div></div><div></div></div>                   | <div><div></div><div></div><div></div></div>                       |
| Food Safety Compliance                          | FDA 175.105  | FDA 175.105  | FDA 175.105  | FDA 175.105  | FDA 175.105  |



Beverage Carton - Cap Bonding

|                      | Viscosity<br>[mPas]            | Processing<br>Temperature      | Application      | Heat<br>Resistance | Cold<br>Resistance | Low Main-<br>tenance &<br>Cleaning | Food Safety<br>Compliance            | Remarks                                    |
|----------------------|--------------------------------|--------------------------------|------------------|--------------------|--------------------|------------------------------------|--------------------------------------|--|
| Jowatherm®<br>250.00 | ~ 18,500<br>at 190 °C (374 °F) | 180 - 210 °C<br>(356 - 410 °F) | Nozzle<br>Roller | ●●●                | ●●○                | ●●○                                | EU 10/2011<br>FDA 175.105<br>GB 9685 | Approved by Tetra Pak and<br>SIG Combibloc |
| Jowatherm®<br>250.80 | ~ 10,100<br>at 180 °C (356 °F) | 180 - 210 °C<br>(356 - 410 °F) | Nozzle           | ●●○                | ●●●                | ●●○                                | EU 10/2011<br>FDA 175.105<br>GB 9685 | Approved by<br>Tetra Pak                   |
| Jowatherm®<br>250.85 | ~ 2,000<br>at 180 °C (356 °F)  | 180 - 200 °C<br>(356 - 392 °F) | Nozzle           | ●●○                | ●●○                | ●●●                                | EU 10/2011<br>FDA 175.105<br>GB 9685 | low stringing                              |

Beverage Carton - Straw Attachment

|                           | Viscosity<br>[mPas]           | Processing<br>Temperature      | Setting<br>Speed | Heat<br>Resistance | Cold<br>Resistance | Low Main-<br>tenance &<br>Cleaning | Food Safety<br>Compliance            | Remarks                  |
|---------------------------|-------------------------------|--------------------------------|------------------|--------------------|--------------------|------------------------------------|--------------------------------------|--------------------------|
| Jowat-Toptherm®<br>256.05 | ~ 1,460<br>at 160 °C (320 °F) | 140 - 170 °C<br>(284 - 338 °F) | ●●●              | ●●○                | ●●●                | ●●●                                | EU 10/2011<br>FDA 175.105<br>GB 9685 | Approved by<br>Tetra Pak |
| Jowat-Toptherm®<br>256.00 | ~ 1,460<br>at 160 °C (320 °F) | 140 - 170 °C<br>(284 - 338 °F) | ●●○              | ●●○                | ●●●                | ●●●                                | EU 10/2011<br>FDA 175.105            | Approved by<br>Tetra Pak |
| Jowat-Toptherm®<br>256.40 | ~ 1,050<br>at 160 °C (320 °F) | 140 - 180 °C<br>(284 - 356 °F) | ●●●              | ●●●                | ●●●                | ●●○                                | FDA 175.105                          | -                        |

Inline Labelling

|                           | Viscosity<br>[mPas]           | Processing<br>Temperature      | Colour       | Heat<br>Resistance | Cold<br>Resistance | Low Main-<br>tenance &<br>Cleaning | Food Safety<br>Compliance | Remarks                                   |
|---------------------------|-------------------------------|--------------------------------|--------------|--------------------|--------------------|------------------------------------|---------------------------|---|
| Jowatherm®<br>252.15      | ~ 950<br>at 140 °C (284 °F)   | 130 - 150 °C<br>(266 - 302 °F) | Yellow       | ●●○                | ●●○                | ●●●                                | FDA 175.105               | Plastic Labels                            |
| Jowat-Toptherm®<br>252.45 | ~ 850<br>at 160 °C (320 °F)   | 140 - 180 °C<br>(284 - 356 °F) | Light Yellow | ●●○                | ●●○                | ●●●                                | EU 10/2011<br>FDA 175.105 | Paper & Plastic<br>Labels<br>Low Staining |
| Jowatherm®<br>270.75      | ~ 4,000<br>at 177 °C (350 °F) | 150 - 170 °C<br>(302 - 338 °F) | Light Yellow | ●●○                | ●●○                | ●●●                                | FDA 175.105               | Repositionable                            |



## Pallet Stabilization

|                                   | Viscosity<br>[mPas]           | Processing<br>Temperature      | Application                  | Colour               | Surface<br>Tack | Low Main-<br>tenance &<br>Cleaning | Supply Form      | Remarks      |
|-----------------------------------|-------------------------------|--------------------------------|------------------------------|----------------------|-----------------|------------------------------------|------------------|--------------|
| <b>Jowat-Toptherm®<br/>256.00</b> | ~ 1,460<br>at 160 °C (320 °F) | 140 - 170 °C<br>(284 - 338 °F) | Bead, stitch,<br>swirl spray | White<br>Translucent | ◐ ○ ○           | ● ● ●                              | Granules         | Dull Surface |
| <b>Jowat-Toptherm®<br/>252.45</b> | ~ 850<br>at 160 °C (320 °F)   | 140 - 180 °C<br>(284 - 356 °F) | Bead, stitch,<br>swirl spray | Light Yellow         | ● ● ○           | ● ● ○                              | Pillow           | -            |
| <b>Jowatherm®<br/>252.15</b>      | ~ 900<br>at 140 °C (284 °F)   | 130 - 150 °C<br>(266 - 302 °F) | Bead, stitch,<br>swirl spray | Yellow               | ● ● ●           | ● ● ○                              | Pouch,<br>Pillow | -            |
| <b>Jowatherm®<br/>270.30</b>      | ~ 3300<br>at 170 °C (338 °F)  | 150 - 170 °C<br>(302 - 338 °F) | Bead, stitch,<br>swirl spray | Colorless            | ● ● ○           | ● ● ●                              | Pellet           | -            |

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### Pallet Stabilization

Adhesives can be applied directly to the package or on slip sheets preventing the load from slipping during transport:

- Safe and stable pallet units
- Highly cost-efficient solution
- Significant reduction of stretch film
- Less plastic
- Less waste and recycling cost
- Increased line efficiency
- No concealing of barcodes or graphics



# Jowat - Our Word is Our Bond

Jowat SE with headquarters in Detmold, Germany is one of the leading suppliers of industrial adhesives. These are mainly used in woodworking and furniture manufacture, in the paper and packaging industry, for graphic arts, in the textile, automotive as well as in the electrical industry. The company was founded in 1919 and has manufacturing sites in Germany in Detmold and Elsteraue, plus three other producing subsidiaries, Jowat Corporation in the USA, Jowat Swiss AG and Jowat Manufacturing in Malaysia. Our North

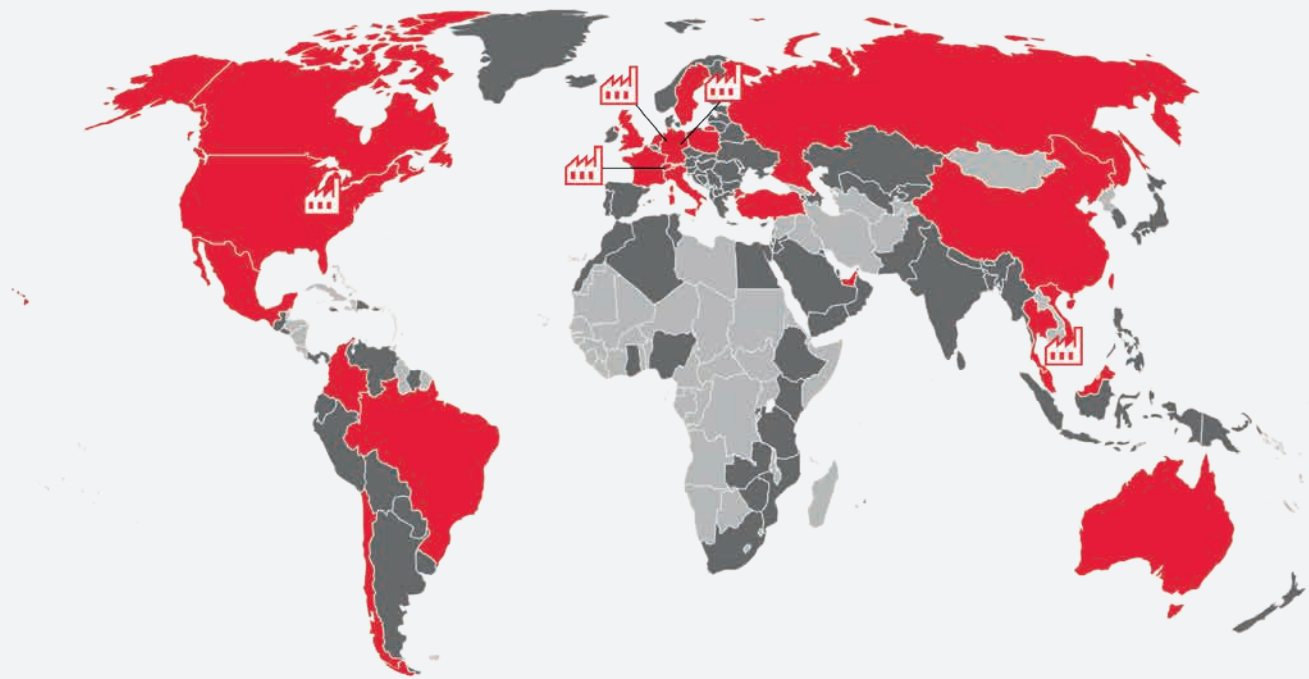
American manufacturing facility, based in High Point, NC, manufactures a complete spectrum of industrial adhesive. Our extensive warehouse and distribution network ensures that our adhesives are strategically located within a 1-2 day shipping point for every major market in North America. Moreover, in the whole Americas, from Canada to Argentina, other Jowat subsidiaries are being supplied with adhesives made in the US.






One of Jowat's producing subsidiaries:  
Jowat Corporation in the USA

# Have we sparked your interest?

As an active innovation partner, Jowat supports processors in the food and consumer goods industry around the world in meeting the expectations of their customers. As one of the globally leading adhesive specialists with many decades of experience, we have a deep understanding of the different challenges in the packaging processes of fast-moving consumer goods – from ever-shorter cycle times, increasingly demanding surfaces or rising requirements regarding process efficiency and sustainability of the packaging.



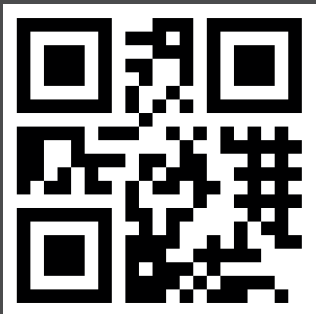
-  Manufacturing locations
-  Markets with Jowat Group companies
-  Markets with Jowat distribution partners

The information given in this leaflet is based on test results from our laboratories as well as on experience gained in the field, and does in no way constitute any guarantee of properties. Due to the wide variety of different applications, substrates, and processing methods that are beyond our control, no liability may be derived from these indications nor from the information provided by our free technical advisory service. Before processing, please request the corresponding data sheet and observe the information in it! Customer trials under everyday conditions, testing for suitability in normal processing conditions, and appropriate fit-for-purpose testing are absolutely necessary. For the specifications and for further information, please refer to the latest technical data sheets.

We are part of the entire manufacturing chain and provide a comprehensive advisory service and competent know-how: from the constant search for and testing of new, sustainable raw materials to the development of innovative adhesive products in close cooperation with subsuppliers and processors within the framework of the technical advisory service, to individual process analyses. For many years, Jowat has played a major role in safeguarding success and protecting investments by delivering adhesive solutions for modern packaging processes to optimise products and processes.

Have we sparked your interest? Contact us!  
We look forward to working together.





[www.jowat.com](http://www.jowat.com)

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