

Portfolio Information

Adhesive Portfolio for the Filter Industry



Filter frame bonding

Filter pleating

Filter media manufacturing



Our Word is Our Bond

Jowat
Klebstoffe



Powerful Adhesives for the Filter Industry

Rising pollution of the air and water have sustained a steady growth in the filter industry over the year. Filters have become an integral part in all aspects of daily life, in both private as well as industrial spheres, to filter out those pollutants and preserve the health and quality of life.

Jowat adhesives are used by filter manufacturers for the bonding of filter frames, the pleating of filters, as well as in the production and laminating of filter media for home, automotive and industrial applications.

The processing of adhesives has become a firmly established and ever-growing component in filter manufacturing.

The use of adhesive technology opens up new possibilities for the development of filters as well as in terms of design and structure. A targeted and efficient adhesive application can optimise the filtering performance. The reliable adhesives from Jowat for the filter industry facilitate a long filter life and high quality of the filter elements.

Due to a close and partner-like relationship with our customers, we are able to constantly optimise our innovative adhesives further to meet the latest requirements and needs in the market.

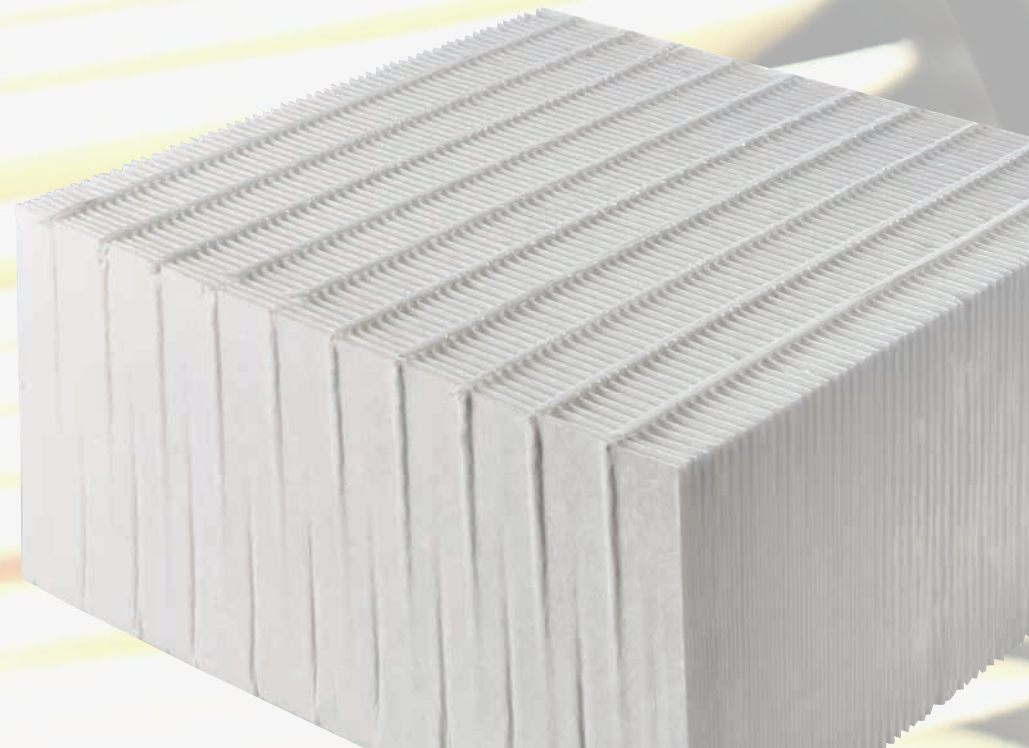




Frame Bonding and Pleating

Adhesives from Jowat stabilise the filter and remain flexible throughout the entire filter life. And this even when the composite material is exposed to mechanical stress or high temperatures.

Jowatherm® and **Jowat-Toptherm®** adhesives facilitate a quick downline processing due to their short open times and high initial strengths, and, thereby, support the fast manufacturing processes in filter pleating. Jowat hot melt adhesives for filter frame bonding are characterised by their technical details which are adapted to the speed of production processes. The extensive portfolio of Jowat also supplies tailor-made solutions for the most different special applications.



Hot Melt Adhesives for Pleating

	Based on	Appearance	Viscosity [mPas]	Processing temperature [°C]	Softening range [°C]	Open time [s]	Remarks
Jowatherm® 262.20	EVA	white	~ 3,600 at 170 °C	160 - 180	~ 95 (Kofler)	~ 10 (2 mm bead)	HEPA and ULPA filters premium product for clean room filters
Jowatherm® 262.25	EVA	colourless, opaque	~ 4,800 at 160 °C	140 - 180	~ 110 (Kofler)	~ 10 (2 mm bead)	HEPA and ULPA filters "all-rounder" for building filters
Jowatherm® 262.32	EVA	transparent	~ 4,500 at 170 °C	160 - 180	~ 100 (Kofler)	~ 25 (2 mm bead)	HEPA and ULPA filters with long open time
Jowat-Toptherm® 263.05	PO	colourless, transparent	~ 26,000 at 190 °C	180 - 200	~ 160 (Ring and Ball)	~ 20 (2 mm bead)	HEPA and ULPA filters for high-temperature applications
Jowat-Toptherm® 263.85	PO	colourless	~ 33,150 at 180 °C	170 - 190	~ 160 (Ring and Ball)	~ 18 (2 mm bead)	engine air intake filters high heat resistance
Jowat-Toptherm® 264.00	PO	colourless	~ 2,700 at 190 °C	170 - 200	~ 115 (Kofler)	~ 20 (2 mm bead)	HEPA and ULPA filters long open time for complex processes
Jowat-Toptherm® 264.25	PO	colourless	~ 3,600 at 160 °C	140 - 180	~ 85 (Kofler)	~ 15 (2 mm bead)	HEPA and ULPA filters PO alternative when EVA is not an option

Hot Melt Adhesives for Frame Bonding

	Based on	Appearance	Viscosity [mPas]	Processing temperature [°C]	Softening range [°C]	Open time [s]	Remarks
Jowat-Toptherm® 238.88	PO	yellowish	~ 31,000 at 190 °C	180 - 200	~ 160 (Kofler)	~ 18 (2 mm bead)	antimicrobial
Jowat-Toptherm® 262.95	PO	colourless, opaque	~ 8,375 at 150 °C	140 - 160	~ 115 (Ring and Ball)	~ 42 (2 mm bead)	wide range of adhesion
Jowat-Toptherm® 263.05	PO	colourless, transparent	~ 26,000 at 190 °C	180 - 200	~ 160 (Ring and Ball)	~ 20 (2 mm bead)	manual and automated processes
Jowat-Toptherm® 263.17	PO	whitish	~ 41,000 at 190 °C	180 - 200	~ 160 (Kofler)	~ 22 (2 mm bead)	low flammability
Jowat-Toptherm® 263.25	PO	colourless	~ 26,000 at 190 °C	180 - 200	~ 160 (Kofler)	~ 18 (2 mm bead)	manual and automated processes
Jowat-Toptherm® 263.30	PO	yellowish	~ 7,100 at 190 °C	180 - 200	~ 130 (Kofler)	~ 30 (2 mm bead)	manual processes
Jowat-Toptherm® 264.50	PO	colourless	~ 11,700 at 180 °C	170 - 190	~ 95 (Kofler)	~ 35 (2 mm bead)	manual processes

Hot Melt Adhesives for Special Applications

	Based on	Appearance	Viscosity [mPas]	Processing temperature [°C]	Softening range [°C]	Open time [s]	Remarks
Jowat-Toptherm® 262.90	PO	colourless, opaque	~ 2,000 at 150 °C	140 - 160	~ 110 (Ring and Ball)	~ 40 (2 mm bead)	seam sealing, end cap potting for drinking water filters, drinking water approval
Jowatherm-Reaktant® 614.40	PUR	white/light beige	~ 15,000 at 140 °C	140	~ 104 * (Kofler)	~ 15 (2 mm bead)	filter belt edge reinforcement
Jowatherm-Reaktant® 614.60	PUR	white	~ 7,000 at 120 °C	110 - 130	~ 50 * (Kofler)	~ 120 (2 mm bead)	assembly bonding of water and wastewater filters

* Non-crosslinked adhesive film.



Adhesives for Special Applications

Jowat adhesives for special applications are the ideal complement to the products for standard applications in the filter industry. **Jowat-Toptherm®** adhesives, for instance, are used for sealing the seams of bag filters and for the end cap potting of filter cartridges for drinking water. They meet the requirements necessary to be approved for drinking water. The edge reinforcement of filter belts and the assembly bonding of wastewater filters requires flexible and hydrolysis-resistant adhesives from the **Jowatherm-Reaktant®** series. Special requirements and processes require special products. Therefore, these adhesives have been jointly developed by Jowat and our customers.

Manufacturing of Filter Media

Passenger compartment filters and activated carbon filters for the purification of the air inside vehicles and rooms are manufactured by joining several layers of filter materials with each other in successive process steps. The finished filter media protects people from fine dust, pollen, spores, soot, bacteria as well as odours and gaseous pollutants like benzene or ozone.

Jowat-Toptherm® and **Jowatherm-Reaktant®** adhesives provide very good results in the lamination process of activated carbon and multi-layer filter media with small application amounts. The low adhesive grammage permits the open surface areas of the activated carbon, when bonded to the carrier substrate, to remain as large as possible for the actual function of filtering and maintaining clean air. These Jowat adhesives developed for filter media lamination, not only have a neutral odour, but also reach very low fogging and emission values.

Jowatherm-Reaktant® adhesives meet the high levels of heat resistance demanded by the automotive manufacturers and facilitate the production of passenger compartment filters in OEM quality.



Hot Melt Adhesives for Filter Media Manufacturing

	Based on	Appearance	Viscosity [mPas]	Processing temperature [°C]	Softening range [°C]	Open time [s]	Remarks
Jowat-Toptherm® 238.75	PO	yellowish, transparent	~ 15,000 at 170 °C	160 - 180	~ 110 (Kofler)	~ 28 at 170 °C (2 mm bead)	activated carbon binding short open time for fast processes
Jowat-Toptherm® 263.45	PO	colourless, opaque	~ 4,000 at 180 °C	170 - 190	~ 150 (Kofler)	~ 24 at 180 °C (2 mm bead)	laminating wide range of adhesion
Jowatherm-Reaktant® 613.40	PUR	yellowish, transparent	~ 21,000 at 140 °C	130 - 150	~ 80 * (Ring and Ball)	~ 10 at 140 °C (2 mm bead)	laminating tack-free and high initial strength
Jowatherm-Reaktant® 614.18	PUR	colorless, opaque	~ 8,000 at 110 °C	100 - 120	~ 68 * (Ring and Ball)	~ 75 at 110 °C (2 mm bead)	activated carbon binding “all-rounder” with low application amount
Jowatherm-Reaktant® MR 614.50	PUR	colorless, opaque	~ 8,000 at 110 °C	100 - 120	~ 60 * (Ring & Ball)	~ 75 at 110 °C (2 mm bead)	no hazard labeling, activated carbon binding, “all-rounder” for efficient application amount

* Non-crosslinked adhesive film.

Jowat - Our Word is Our Bond

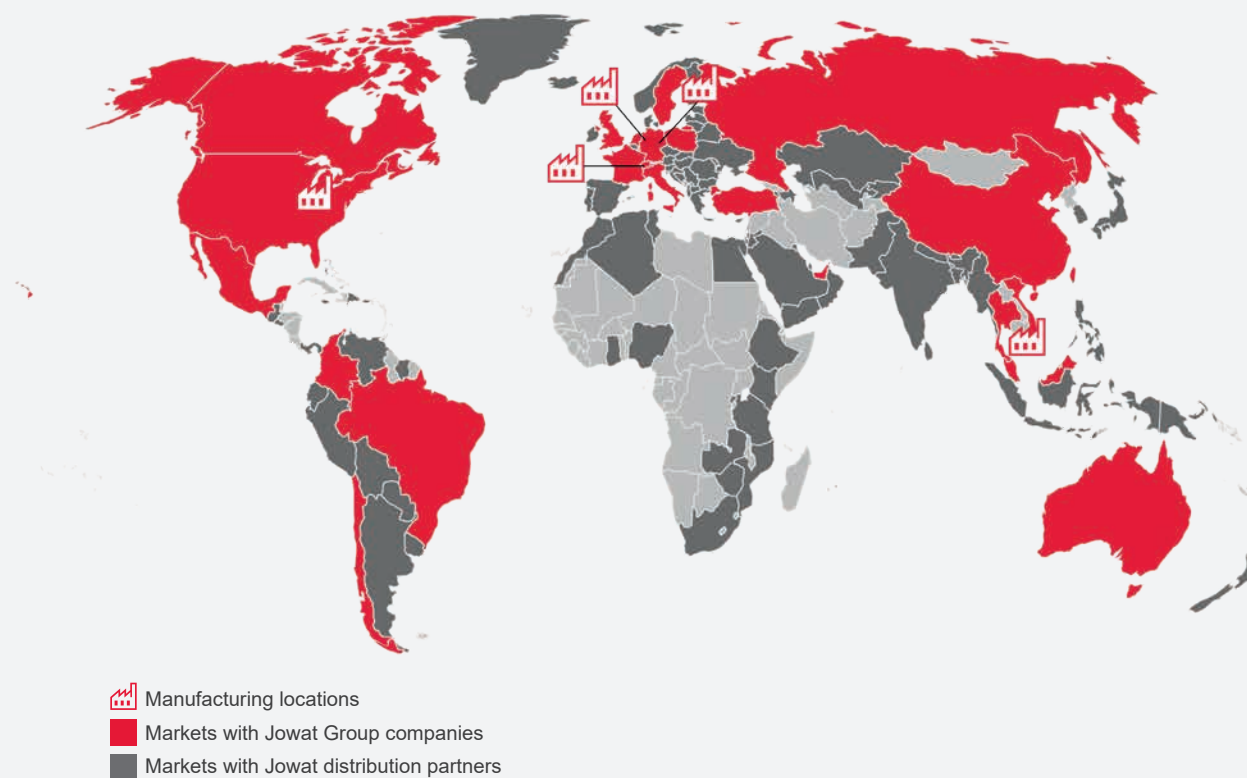
Jowat SE with headquarters in Detmold is one of the world's leading suppliers of industrial adhesives. These are mainly used in woodworking and furniture manufacture, in the paper and packaging industry, for graphic arts, in the textile, automotive as well as in the electrical industry. The company was 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. The supplier of all adhesive groups is manufacturing over 100,000 tonnes of adhesives per year, with about 1,200 employees. A global sales structure with 23 subsidiaries plus solution partners is guaranteeing local service with close customer contact.



Have we sparked your interest?

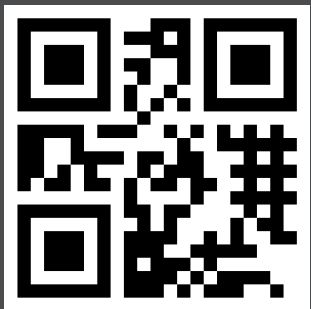
Jowat actively supports innovation in the manufacture of filter elements as well as in the production of filter media and draws on a deep understanding of the challenges in the filter industry. Be it special physical properties, a wide variety of material combinations, requirements due to special media resistances, durability in the filtering process or also with regard to energy and cost efficiency as well as a growing range of applications – together we will find a solution for your specific application.



We provide a comprehensive advisory service coupled with competent know-how for the entire process: From the tireless search for new, sustainable raw materials and their testing, to the development of innovative adhesive products in close cooperation with subsuppliers and processors, all the way to the support in technical application matters and to individual process analyses. For many years, Jowat has played a key role in safeguarding success and protecting investments by providing adhesive solutions for filter production and filter media manufacturing which facilitate the optimisation of products and processes.

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

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.



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