Filter manufacture

- High initial strength / handling stability
- High temperature resistance
- Open time adapted to line speeds

Jowatherm®
Jowat-Toptherm®

Jowat Klebstoffe

Filter manufacturing: Pleating and frame bonding

The manufacturing of pleated filters requires the assembly of a variety of materials, like papers, fleece of all kinds, or even materials containing Nano-fibres.

Engine intake air filters are good examples to explain the importance of these pleated filters. They need to guarantee that the high-performance components are protected against potential damages from rust, pollen, dust, tire abrasion, sand, and other dirt, allowing the engine to operate with efficient combustion and without damage. The pleating in this case functions to enlarge the surface while taking up only a small space.

Since the filter materials and also the manufacturing methods differ widely, the adhesives utilized for the pleating process demand special properties:
- an open time adapted to the line speed
- a high initial or green strength / handling stability
- a high temperature resistance

Filter papers soaked with phenolic resin undergo thermal processes after pleating which may expose them to temperatures up to 180 °C, and of course, the adhesives must withstand this stress.

The engine compartments of today's cars are becoming more and more compact, and in consequence allow only very limited space for the air filters. When these are exchanged in the course of maintenance, the filter elements are heavily deformed, which then also requires superior resistance of the bonded frames. The adhesive, specifically the adhesive joint, may not fail, and the filter pockets must remain sealed. Additionally, the performance of the filter element may not be diminished in any way by the adhesive.
Jowat-Toptherm® adhesives provide structural properties due to their superior bonding characteristics on papers and fleece materials, and also the excellent mechanical resistance when used for pleating or frame assembly operations. They get the filters in shape and always remain flexible over the entire life of the filter. They do not undergo deformation, even when the material compound is exposed to mechanical forces or high temperatures.
The Jowatherm® and **Jowat-Toptherm®** adhesives for pleating and frame assembly, with superior flexibility and reliable processing characteristics, allow the filter elements to operate for a long time in high quality.

Application Information

Jowat-Toptherm® 264.50

Frame adhesive for the manufacture of filter media, also for manual applications

Polymer basis	Polyolefin
Viscosity at 180 °C	12,000 mPas
Processing temperature	170 - 190 °C
Open time (measured on a 2 mm bead)	approx. 60 s

Jowatherm® 262.30

Pleating adhesive for the manufacture of filter media for supply and exhaust ventilation systems in buildings

Polymer basis	EVA
Viscosity at 170 °C	approx. 4,200 mPas
Processing temperature	160 - 180 °C
Open time (measured on a 2 mm bead)	approx. 5 s

Jowat-Toptherm® 262.90

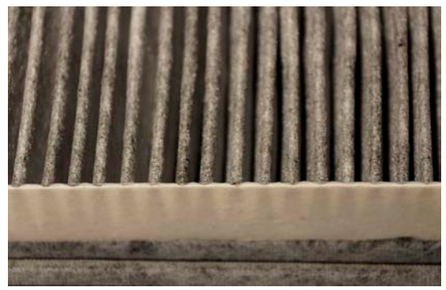
For sealing of fleece filter ends and for seam sealing as well as for the endcap casting for drinking water filter.

Polymer basis	Polyolefin
Viscosity at 150 °C	approx. 2,000 mPas
Processing temperature	140 - 160 °C
Open time (measured on a 2 mm bead)	approx. 30 s

Jowat-Toptherm® 263.15

Pleating adhesive for the manufacture of filter media and for the frame assembly operation

Polymer basis	Polyolefin
Viscosity at 190 °C	approx. 28,000 mPas
Processing temperature	180 - 200 °C
Open time (measured on a 2 mm bead)	approx. 15 s



Note: The products listed only represent a limited selection of the available product portfolio. Our service and consultation team from Sales and Product Marketing will be pleased to provide specific information, to select the product suitable for your process.

Jowat | Ihr Partner in Sachen Kleben
Jowat | Your Partner in bonding

Jowat – Kleben erster Klasse
Jowat – first class bonding

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