

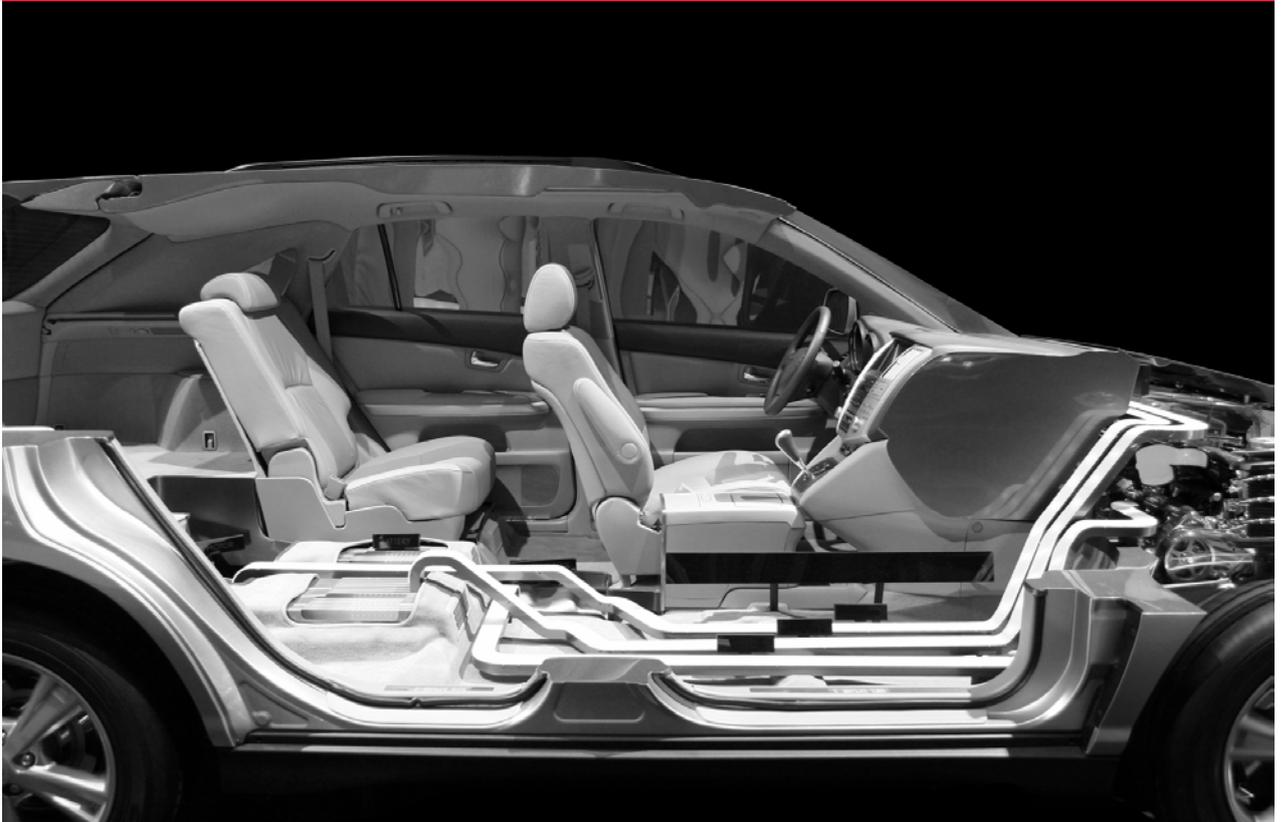
# Automotive adhesives

- Reactive hot melts
- Thermoplastic hot melts
- Pressure sensitive hot melts
- Dispersions



**Jowatherm-Reaktant<sup>®</sup>**  
**Jowatherm<sup>®</sup>**  
**Jowat-Toptherm<sup>®</sup>**  
**Jowapur<sup>®</sup>**

# Jowat adhesives in the automotive industry



Today, automobile manufacturers rely on adhesive technology as a fixed component of their production lines. In each vehicle, an average of 15 kg of different adhesives is used to assemble and mount a vast variety of parts.

Automotive companies and their sub-suppliers of international renown place confidence in the innovative adhesives made by Jowat.

The major area where the adhesives of Jowat SE are used is the car interior. Even if the specific processing technologies for adhesives vary widely - all products supplied by Jowat SE have been tested extensively and proven in long-term use. New processes and adhesives are developed in close cooperation among the automotive partner, the parts producer and the engineering company involved. After successful completion of all tests, implementation in serial production can start. The adhesives have the role of supporting an efficient manufactur-

ing process as well as matching the requirements of the individual component.

Adhesives from Jowat SE are used throughout the entire supply chain: from pre-coating with thermoplastic hot melts directly onto the foil or the textile, to the production of interior components, and to the final assembly in the vehicle.

There are multiple applications: from attaching emblems, to the manufacture of complete textile convertible roofs, from trunk lining to decorative trim for air duct grids, from the surface coverage of the columns, to the assembly of the sub-layers of the seats - adhesives made by Jowat are used successfully everywhere.

This brochure is not a complete compilation of all bonding processes in the automotive sector. It is only intended to provide an overview of the multiple adhesive applications in this industry.



## Interior decorative trim

For the visual appeal of car interiors, the panelling of the doors, instrument panels and columns are of major importance. Whether exclusive textiles, modern foils or real leather – the most diverse manufacturing methods are used for a wide choice of materials. Jowat adhesives allow economic processes for all currently used technologies. New material combinations are the daily challenge, which Jowat adhesives help to master.



## Trunk cover and lining

The car trunk is not only the place to stash the luggage. It also contains multiple adhesive applications. Carpeting is bonded to loading areas and to the underside of the rear seats, assembly of formed foam components and covers for trunks with sliding components or parcel shelves. Jowat adhesives are used in vehicles of all major automotive manufacturers for these applications.



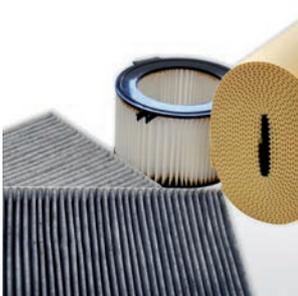
## Sound and vibration absorption

The acoustics inside a vehicle depend to a large extent on the use of sound-insulating elements. These are bonded directly onto the sheet metal car body to serve as soundproofing factors. The precoating with pressure-sensitive hot melts simplifies processing on the line and also makes it user-friendly. The vibration-reducing property of the adhesive additionally supports the effect of the insulating materials.



## Assembly and special applications

When lifting the panelling of a car, many clips and retainers can be seen. The most appropriate joining technology is bonding. Thermoplastic and reactive hot melts are used to attach these and many other assembly components and provide the final form and function for the vehicle.



## Filter manufacture

The filters in a vehicle are consumption products. The air, oil and cabin filters have to be replaced regularly. Filters supplied by automobile manufacturers in new vehicles, and replacement filters, are bonded with Jowat adhesives.

# Automotive manufacturing rely on innovative

## Engine compartment

**PO hot melt**  
**PUR hot melt**

Oil filter assembly  
Air filter assembly  
Starter battery (metal cells in PP casings)  
Suction channel (assembly PP parts)

## Interior fittings/panelling

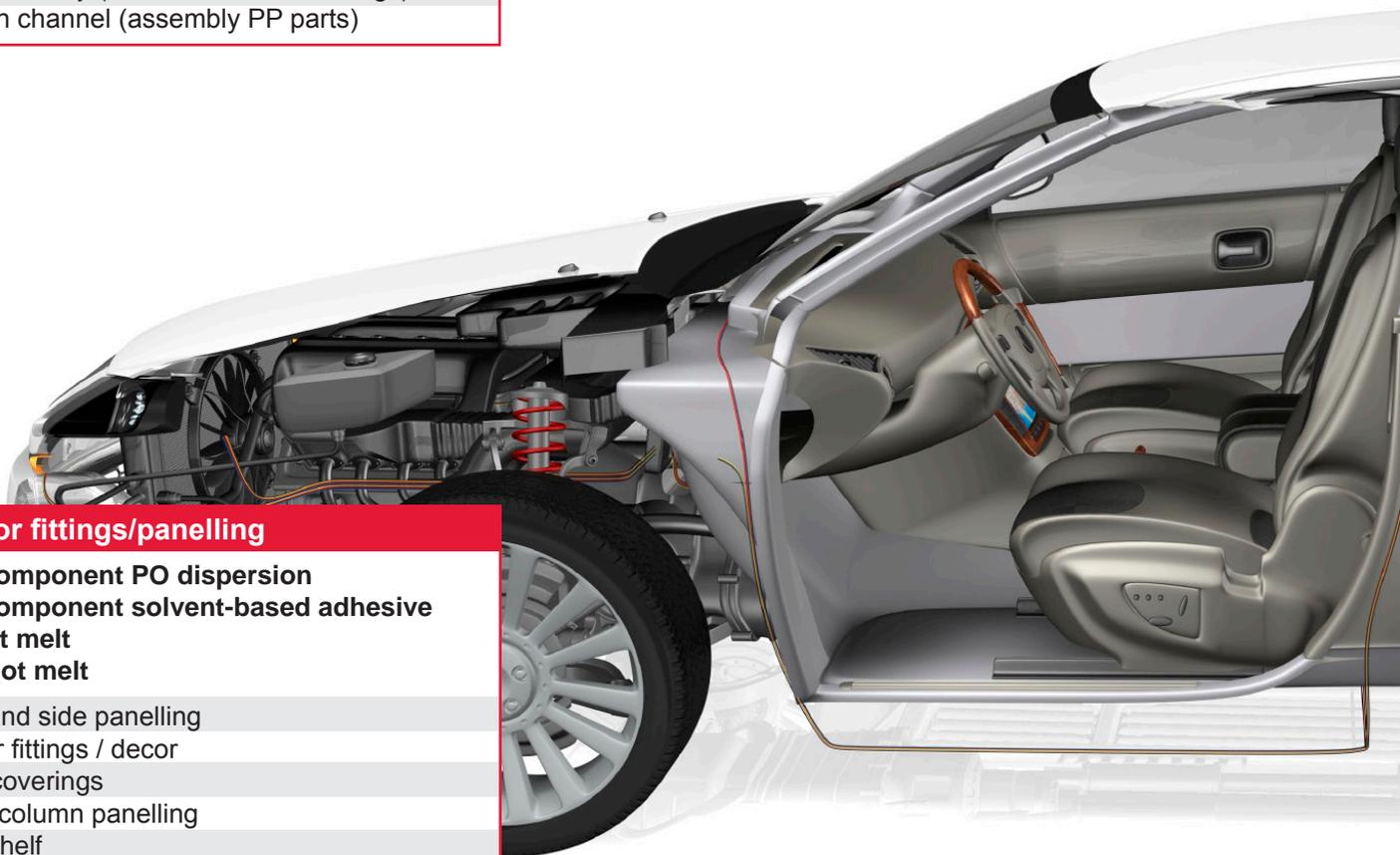
**Two component PO dispersion**  
**Two component solvent-based adhesive**  
**PO hot melt**  
**PUR hot melt**

Door and side panelling  
Interior fittings / decor  
Floor coverings  
A/B/C column panelling  
Rear shelf  
Ceiling liner assembly  
Instrument Panel  
Center column  
Lamination of armrests: PVC foil to ABS

## Assembly / Special applications

**PO hot melt**  
**PUR hot melt**

ABS clips  
Clips and fasteners  
Air bag covers  
Assembly bonding  
PE cable wrapping  
Head lamp assembly  
Convertible roof bonding



# ers and their subsuppliers ve Jowat adhesives

## Exterior applications

### PUR hot melt

Decorative exterior trim  
Exterior mirror (splinterguard)  
Emblems (aluminium to PVC)

## Sound and vibration absorption / insulation

### Pressure-sensitive hot melt

Self-adhesive coating of insulation materials  
Sound and vibration absorption foils for metal frame panels

## Trunk cover and lining

### PUR hot melt

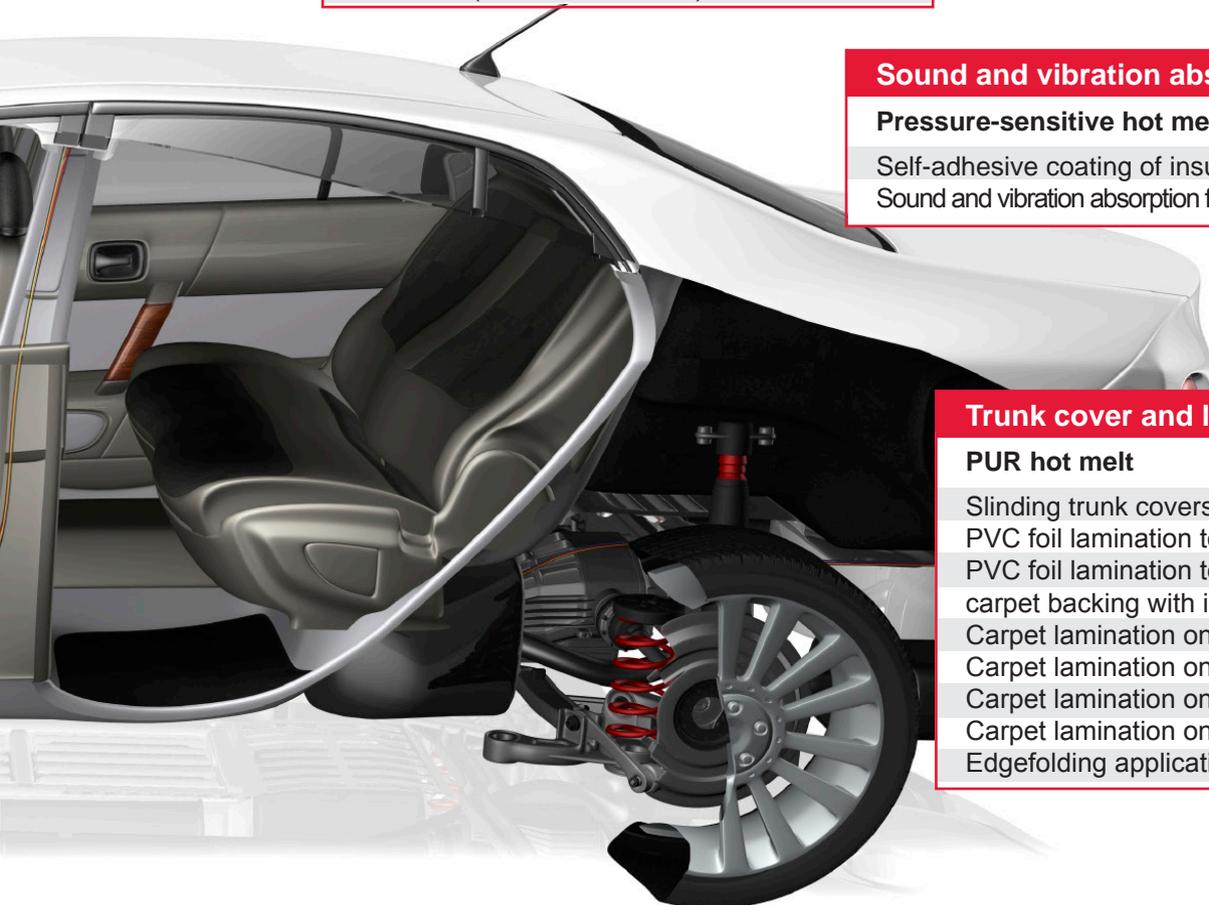
Sliding trunk covers for station wagons  
PVC foil lamination to hardboard  
PVC foil lamination to aluminium  
carpet backing with insulating fleece  
Carpet lamination on ABS  
Carpet lamination on GMPU  
Carpet lamination on hardboard  
Carpet lamination on PP  
Edgefolding applications

## Seat manufacture and seat lamination

### Pressure-sensitive hot melt

### PUR hot melt

PU foam bonding  
Lamination of leather, plastic foils and textiles to PU foam  
Seats: Rear seat backing lamination  
Seats: Rear seat cover  
Seats: Rear backrest lamination  
Seats: Rear covers



## Thermoplastic hot melt adhesives

### Jowatherm®

For carpet bonding and self-adhesive coating.

Product	Characteristics	Viscosity
244.80	superior heat resistance good permanent tack high peel strength	approx. 25.000 mPas at 180 °C



### Jowat-Toptherm®

For laminating of foils for vehicle interiors. Also suitable for pre-coating and the manufacture of filter media.

Product	Characteristics	Viscosity
238.20	PP and NFPP without pretreatment	approx. 17.000 mPas at 200 °C
238.80	Long open time, high heat tack, very high heat resistance	approx. 30.000 mPas at 190 °C
238.75	Attaching the activated charcoal	approx. 16.000 mPas at 170 °C
263.15	Filter frame bonding	approx. 28.000 mPas at 190 °C



### Jowat-Hightherm®

For assembly and retainer bonding.

Product	Characteristics	Viscosity
221.00	also flat-lamination PP and NFPP without pretreatment	approx. 28.000 mPas at 190 °C
264.00	Fixing of battery elements in plastic casings	approx. 3.000 mPas at 180 °C



## Dispersion adhesives

### Jowapur®

For laminating operations of interior trim using soft ABS or TPO foils on plastics or fibreboard substrates.



Product	Characteristics	Viscosity, solid content
158.29 + 197.05	high tack, long open time, high initial strength, for edgelifolding operations	approx. 370 mPas (Haake 3001/s) approx. 43 % solid content
157.28 + 197.05	Soft laminating adhesive, especially suitable for manual finishing	approx. 650 mPas (Haake 3001/s) approx. 57 % solid content

## 2-component PU adhesive

### Jowapur®

For foil lamination of interior trim with soft PVC foam foils, ABS or TPO foils on plastics or fibreboard substrates.

Product	Characteristics	Viscosity, solid content
493.25 + 498.07	high tack, long open time, high initial strength, for edgelifolding operations	approx. 210 mPas (Höppler) approx. 16 % solid content

## PUR hot melt adhesives

### Jowatherm-Reaktant®

For textile lamination in the automotive industry.

Product	Characteristics	Viscosity
630.80	foam/textile, textile/textile, high UV resistance	approx. 8.000 mPas at 140 °C

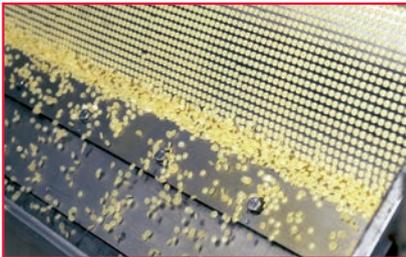
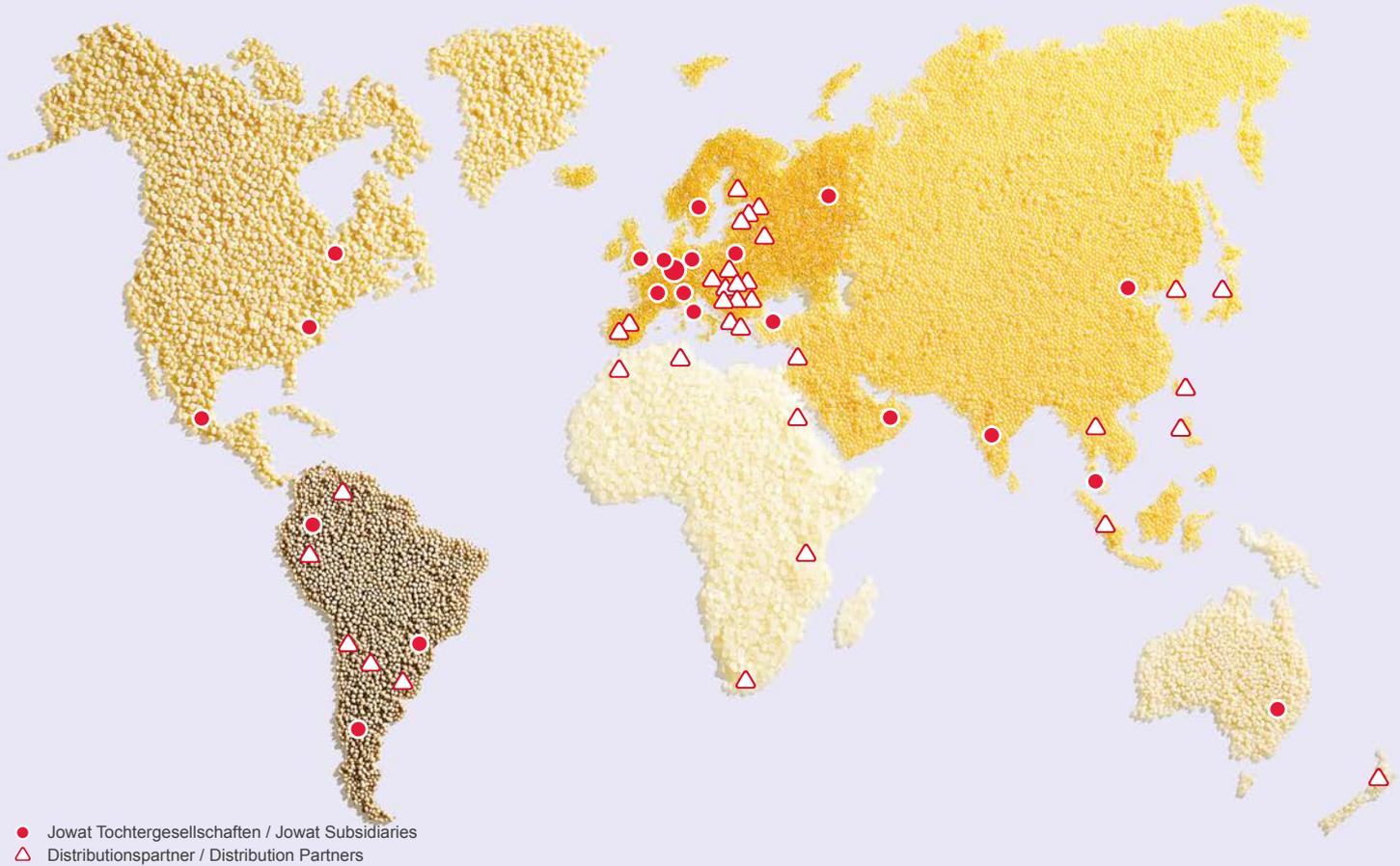
For press and vacuum lam. of structural elements for car interiors.

Product	Characteristics	Viscosity
613.75	universal uses, high initial strength	approx. 45.000 mPas at 140 °C

For assembly and flat bonding.

Product	Characteristics	Viscosity
613.90	long open time, good initial strength	approx. 45.000 mPas at 140 °C

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



**Jowat – Kleben erster Klasse**  
**Jowat – first class bonding**

**Jowat**   
 Klebstoffe

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