

3M Automotive

Driven by Innovation. Worldwide.

Interior



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3M Innovation

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A detailed product overview of innovative 3M fastening technology and all other 3M solutions in the “interior” area is provided on page 19.

Convincing Inner Values.

Indeed for automobile drivers as well as manufacturers: high-quality optics, perfect acoustics, superior technology – products from 3M Automotive increase the comfort in vehicle passenger compartments and reduce production cost.

With a broad spectrum of innovative fastening technology, optical films and a new generation of cabin air filters 3M Automotive offers system solutions for all areas of the passenger compartment:

- Headliner
- Cockpit
- Seats
- Doors
- Floor systems
- Luggage Compartment

From the intensive exchange with the automotive industry we develop application-oriented solutions based on a wide variety of technology platforms, for all process steps. Our objective in this regard remains constant; increase product quality and at the same time optimise production processes.

On the following pages you will become better acquainted with the world of 3M Automotive: learn how and why 3M products improve air quality in the passenger compartment, reduce noise generation, reduce vehicle weight, save structural space, enable new solutions in automobile electronics, facilitate installation and simplify assembly. In brief: learn for yourself how 3M Automotive supports automotive progress worldwide.

Worldwide competence

Listen. Think together. Find solutions.

The history of our collaboration with the automotive industry began more than 100 years ago for the 3M group: one of the first customers was a large manufacturer in Detroit where after precise observation and analysis of the painting process 3M developed self-adhesive masking tapes. This was the impulse for the exemplary corporate development of what is today a globally operating system supplier for the automotive industry: 3M Automotive.

This was also the foundation for our philosophy to which we have remained true to this day: Observe more precisely, listen better, think together and in open dialog with our customers – find new solutions for even more efficient processes and better products: Driving Innovation. Worldwide.

Listening to customers.

Discoveries and product developments from 3M always come about in close cooperation with international automobile manufacturers who must always confront new challenges: in an increasingly competitive automotive industry it is not just the requirements placed on quality and efficiency that increase, but also demands for product and production processes that are environmentally responsible.

We are sensitive to all processes involved in automotive manufacturing. In this regard we identify and analyze the need and develop innovations that support supplier and manufacturer in maintaining their market position.



Six Sigma – the path to high-performance.

Six Sigma means: Fewer than four errors per one million events. In the field of statistics, the Greek character sigma means an extremely low standard deviation in recurring processes. At 3M Automotive Six Sigma stands for continuous process improvement – not only internally, but to an ever increasing extent, also in cooperation with our customers.

Application processes, material management and solution development processes are systematically optimised: since the introduction of the Six Sigma methodology at 3M Automotive it has become a fundamental component of our corporate culture.

Worldwide presence with 25 Automotive Centers.

Wherever the major automobile manufacturers and suppliers produce, is where you will also find 3M Automotive: with 25 Automotive centers across the globe we are always in direct contact with our customers.

Our key account teams know your local situation and local production very well; this is why we deliver on our promise everyday: Listen, think together, find solutions.

Headliner



Discover a new universe.

Improved ambiance without solvents and a universe of new possibilities with innovative fastening technology: with 3M products you not only accelerate assembly, you can also integrate multiple components in the headliner in a simple manner.



3M™ Hot Melt Adhesives:

Fast. Simple. Secure.

Even when it's hellishly hot.

3M™ Jet Melt™ and Jet Weld™ adhesives withstand temperatures up to 130°, and as a consequence they are particularly suitable for fastening cables and other elements in the headliner area. They achieve high strength in seconds and even bond PVC and PP securely with the headliner. Moreover they can be used with outstanding results in the door and seat areas.



3M™ Fastbond™

Dispersion Adhesive:

The solvent-free solution.

3M improves the atmosphere in the work environment: Solvent-free 3M™ Fastbond™ dispersion adhesives are impressive, particularly for large area bonds, due to lower emissions and are more economical in use than most solvent-containing products. In addition, foams, textiles and leather used with interior can be processed with Fastbond products .



3M™ Dual Lock™

reclosable fastening systems:

A new idea with two good sides.

Reclosable fastening and high mechanical holding forces: 3M™ Dual Lock™ brings these features together for passenger compartment components, such as headliner and plastic trim panels. The product with mushroom-shaped hooks is available in many variants – self-adhesive or as mechanical fitted clip. Positive pressure engages the fasteners and holds the headliners in place, resulting in a fast blind fastening.

Create design possibilities

FACILITATE INSTALLATION

Optimise Interior acoustics

Reduce weight

Save structural space

SIMPLIFY ASSEMBLY

Reduce process costs

Improve cabin air quality

Cockpit

- Create design possibilities
- Facilitate installation
- Optimise Interior acoustics
- Reduce weight

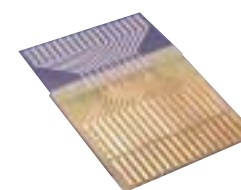
SAVE STRUCTURAL SPACE

- Simplify assembly
- Reduce process costs

IMPROVE CABIN AIR QUALITY

Start from pole position!

Exclusive comfort in the cockpit, glare-free instrument panels, innovative ideas for modern packaging architectures: get the decisive competitive edge for yourself and together with 3M set the path to new automotive interior trends.



3M™ electrical and thermally conductive adhesive films:

Are you faced with the challenge of reduced height for components?

Electrical and thermal conductive adhesive films can revolutionise your electronic components. A thin, 0.1 mm, adhesive film reliably conducts electricity. An additional film with high thermal conductivity effectively transports heat to the heat sink. These and other products are self-adhesive, thus eliminating the need for additional assembly aids. They can be delivered custom-tailored to your requirements, can be applied quickly and allow immediate further processing.



3M™ Vikuiti™ optical films:

Guide and amplify light.

By preventing undesirable reflections in the cockpit and on the windshield, optical films applied to instrument clusters can improve driveability. Moreover navigation systems and entertainment systems can be made visible to the driver and the front-seat passenger. With optical films you can increase the efficiency of a light source by 90%, obtaining more uniform illumination with reduced heat generation.

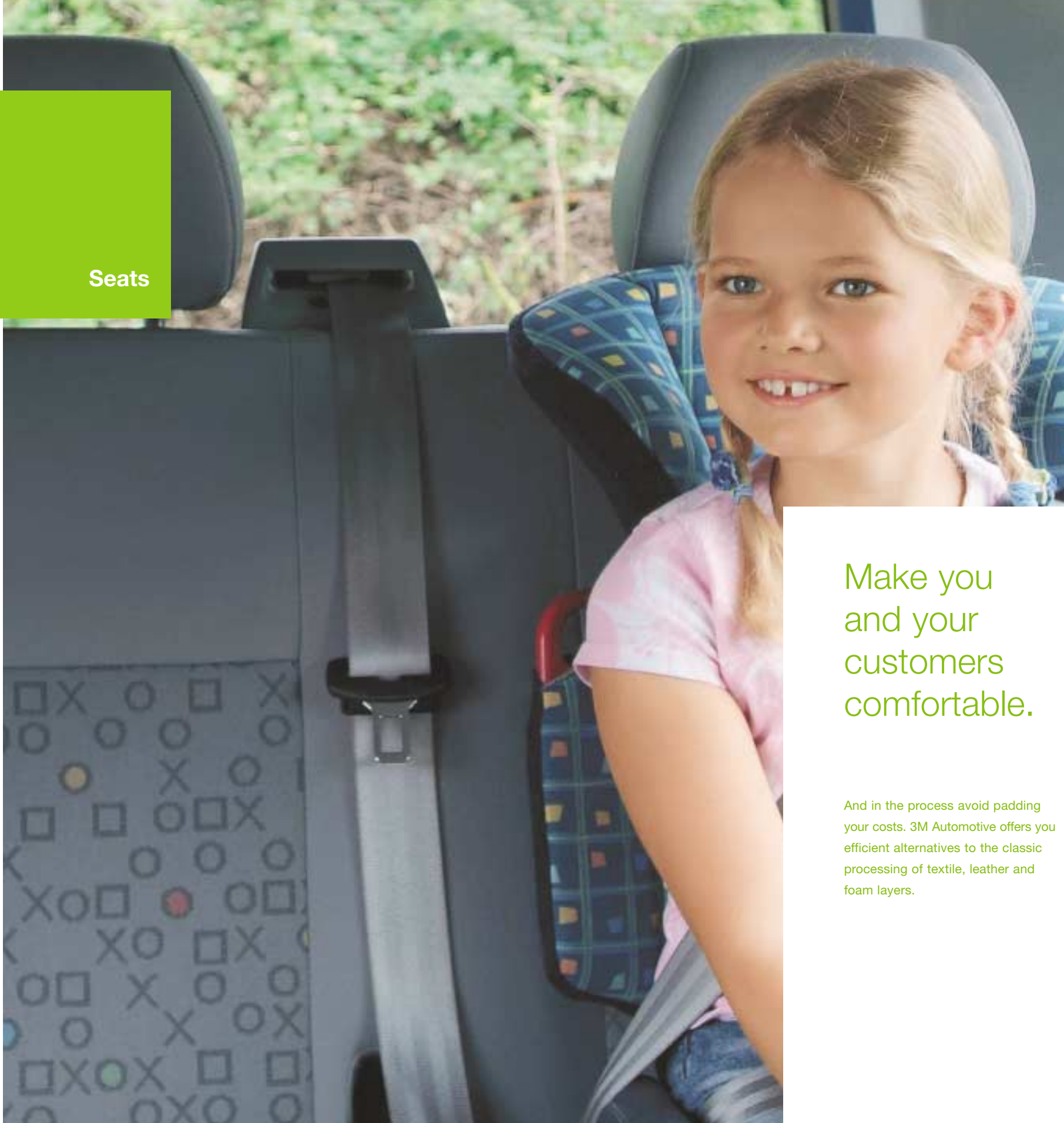


3M™ cabin air filters:

Fresh air enjoyment.

Now all vehicle passengers can breathe freely: 3M cabin air filters prevent dust, exhaust fumes, pollen, or dirt from getting into the passenger compartment. Thanks to the ultra-fine fibre structure of the 3M particle and combination filters even people who suffer from asthma or allergies can be effectively protected from undesirable external influences. Here the new 3M Filtrete™ Micro Allergen passenger compartment filters will set new standards for even better air quality. See for yourself!

Seats



Make you
and your
customers
comfortable.

And in the process avoid padding your costs. 3M Automotive offers you efficient alternatives to the classic processing of textile, leather and foam layers.



**3M™ Superflex seat cover fastening:
Quickly covered!**

The 3M Seat Fastener system its unique 3D flexibility enables new types of seat contours. A sophisticated product construction ensures outstanding attachments to the seat foam. Fast processing results in significant productivity increases in the assembly process. Due to the unique product construction, narrow trim channels can be realised, offering new possibilities for seat design.



**3M™ Hot Melt Adhesives:
3M™ Fastbond™ Dispersion Adhesives:**

Just apply and go!
Are you looking for a new solution to process foams and seat covers that fits precisely in your production process? Then you have just found what you are looking for. The widest variety of materials from the seat and cushion area can be fastened quickly and securely using hot melt and water-based adhesives.

Doors

Climb on board!

Make a decision for even better products and even more efficient production: 3M reduces component weight and ensures that it is quiet in the passenger compartment.



Thinsulate™ Acoustic Insulation: **Close the door. Hear the silence.**

That sounds good! Thinsulate Acoustic Insulation significantly reduces noise in the vehicle's passenger compartment and thus increases driving comfort. Thinsulate™ Acoustic Insulation is a product family based on polyester and polypropylene micro-fibres, combining highly efficient acoustic absorption with minimal surface weight. Production of acoustic parts is quick and cost-effective. Attachment is simple (e.g. through ultrasound welding) and thus can be simply integrated in your production process.



3M™ Acrylic Foam double-sided adhesive tapes: **Dependable attachment without the weight.**

3M™ Acrylic Foam double-sided adhesive tape is the universal solution for secure and permanent attachment of components such as seals and pillar trims, even on critical materials like polypropylene and other "difficult" plastics. With these attachment solutions you can not only reduce the component weight but also prevent contact corrosion.



3M™ Two-component structural adhesives: **Twice as good.**

3M offers the ideal solution where mechanical fasteners are not practical economically, or not possible for technical reasons. High-strength bonds for a wide variety of materials are produced with 3M Two-component structural adhesives. Our Two-component adhesives not only bond plastic to metal, but they also bond polypropylene to polyethylene.

Create design possibilities
Facilitate installation

OPTIMISE INTERIOR ACOUSTICS

REDUCE WEIGHT

Save structural space
Simplify assembly
Reduce process costs
Improve cabin air quality

Floor systems



- Create design possibilities
- Facilitate installation
- Optimise Interior acoustics
- Reduce component weight
- Save structural space
- Simplify assembly

REDUCE PROCESS COSTS

- Improve cabin air quality

Listen. And be amazed.

Shhh. Do you hear anything? No? Then that may be because of us. 3M means: forget rattles, buzz and squeaks! Noises are produced that nobody wants to hear when components rub against each other or transmit vibrations. 3M Automotive offers you solutions for clearly improved passenger compartment acoustics.



3M™ hollow glass spheres:

Built with air to reduce weight.

Noise that reaches the vehicle interior through the floor are perceived as irritating. To some extent they are eliminated by heavy and expensive damping layers. By adding 3M hollow glass spheres their acoustic damping values can be improved while concurrently reducing weight. And that is just one of many possible applications for these microscopic “wonder” spheres.



3M™ low friction tape:

Added value through less friction.

If components slide silently instead of audibly rubbing against each other, then the most likely reason is highly compressed polyethylene adhesive tape from 3M. 3M low friction tape reduces friction resistance and prevents abrading. Therefore you offer a triple benefit to your customers: the respective components are protected against corrosion, maintain their flawless appearance and do not generate any unpleasant secondary noises.

Luggage compartment



- Create design possibilities
- Facilitate installation
- Optimise Interior acoustics
- Reduce component weight
- Save structural space

SIMPLIFY ASSEMBLY

- Reduce process costs
- Improve cabin air

Set the perfect course with 3M.

Movement, innovation and progress – only one thing always stays constant: our continuous commitment to research and development. In order for you to continue setting the ideal course 3M Automotive also guarantees you dependability and even higher quality for the future.



Scotchgard™ paint protection films: Flawless – without scratching the surface.

Sometimes we also can resist change. With Scotchgard™ paint protection film the paint remains flawless in spite of daily demands. Unpacking, packing, getting out, getting in – transparent or black Scotchgard™ paint protection films inconspicuously and perfectly protect all highly stressed zones like loading and door sills and bumpers.



3M™ Identification products: X-Files. Unsolved.

Inseparably connected: Important labels and information in the passenger compartment such as the airbag warning sticker should not be removed. You can securely identify products and components with a variety of labelling solutions. We offer products whose intentional removal can be indicated under UV light.



3M™ Scotchmate™ Hook and loop fasteners: With hooks. No catches. Slip-resistant

Self-adhesive Scotchmate™ hook and loop fasteners can be bonded on virtually all materials and make it possible to secure warning triangle, first aid kit and tools in place, but also allow removability. The hook fastener simply hooks into the carpet lining of the trunk.

Future orientated technologies



Move into the overtaking lane with us!



More light, more individuality, more comfort. With innovations in film technology, in micro-replication and in the area of non-woven technology we support you in being out in front in the competition for your customers. 3M future technology provides all prerequisites necessary to design your production processes ever more efficiently in the future and particularly to satisfy customer demands relative to infotainment, design, light and safety.

3M lighting solutions: Light is life.

The feel of driving a convertible in any season, however without wind, cold, rain – impossible? In the past we have made the impossible possible. For example, today we develop new ideas for ambient lighting and more favourable light distribution in the passenger compartment.

3M and Flat Flexible Technology from I&T:

A secure connection.

What the central nervous system is to a human being, the on-board network is to an automobile. Similar to its natural example, it is subject to a continuous evolution. The growing number of safety, communication and entertainment systems results in an increase of electronic connections to install in spaces that are becoming ever more compact. To meet these increasing requirements I&T develops cable sets using extruded flat flexible cable technology. The flat form makes it possible to provide the cable with intelligence – through direct integration of LEDs, sensors, switches and drivers on the flat conductor. Supplemented by 3M products and technologies a unique symbiosis occurs that enables us to realise technologies that point the way to the future.

3M Solutions for product and trademark protection:

Security – a global problem.

3M offers tailored security solutions for your company. With the products that protect against theft, counterfeiting or trademark piracy you are always a step ahead of counterfeiters. 3M is the worldwide leader in the area of trademark and product protection, developing unique technologies and supplying manufacturers of branded products and industrial companies. All 3M products are custom-tailored to your needs and for the most part can be used in legal actions.

Our Product Range

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