

Gottlieb Binder GmbH & Co. KG
Bahnhofstrasse 19
71088 Holzgerlingen | Germany

Phone: +49 7031 683 0
E-mail: info@binder.de
Web: www.binder.de

KEY INDUSTRIES

Version 04.2024

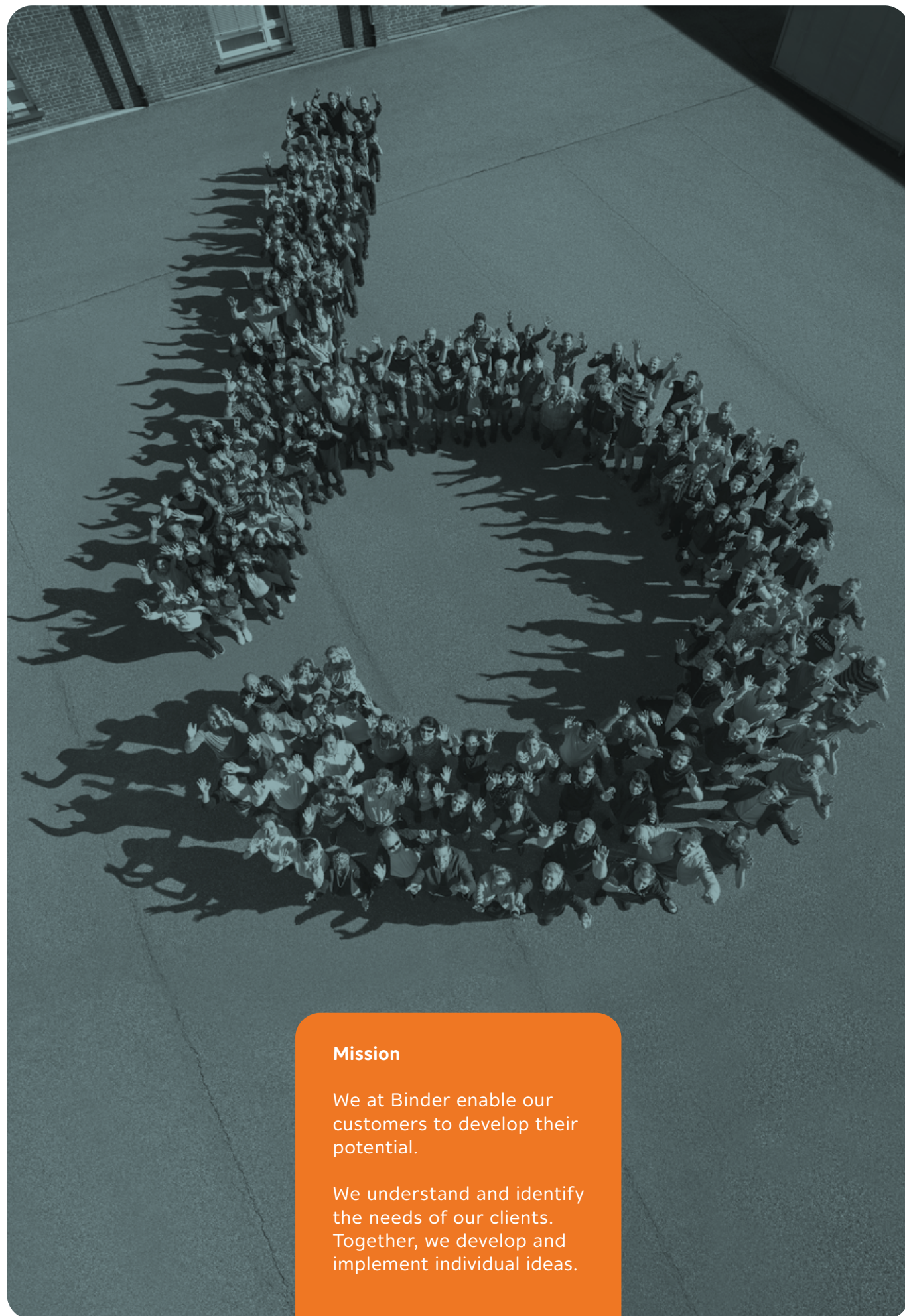
■ Customised fastening solutions: repositionable and reclosable

In action wherever you need us

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Mission

We at Binder enable our customers to develop their potential.

We understand and identify the needs of our clients. Together, we develop and implement individual ideas.

■ Your success starts with our solutions

More than two centuries ago, in 1798, the impressive story of our family business began in Holzgerlingen, Germany. To this day, we at Binder are highly ingenious and we place great emphasis on quality and durability. We also have a certain penchant for perfection.

Our numerous developments and patents as well as our continuous search for innovative solutions are why we've risen to become a technology leader for high-tech fastener systems over the last two centuries. We are constantly expanding our innovative edge by relying on our own research and development and we collaborate with leading research institutes and universities. We develop and produce exclusively in Germany.

To us, our customers' tasks are an exciting challenge that we take on with a great deal of commitment, know-how and passion. Our goal is to enable companies in every industry to develop their potential with our fastening solutions and to differentiate themselves in the market.

” What started as a simple idea now opens up entirely new dimensions. We pride ourselves on meeting our customers' challenges with a diverse range of fastening solutions. Individual, tailor-made, for every industry.



Patrick Geffers Managing Director

■ Our value is in offering you a unique, personalised customer experience.

From simple to highly customised, from initial concept to commercial production, we bring you the complete package. We have extensive experience with incorporating our technologies into various production capabilities to create a truly holistic solution. When you work with Binder, we not only empower you to create fastening systems that bring you value and peace of mind, we also bring you the support to implement the system in your manufacturing environment. This collaborative approach assists in achieving the fullest value of the fastening system while keeping speed of commercialisation of your products front of mind.



■ Your experience with us extends to high quality & sustainable solutions

Whether sustainability, quality management or social responsibility – we set high standards for ourselves and are also externally evaluated. The certificates and awards from independent institutes are very important to us and an ongoing incentive to become that little bit better.



In-house laboratory

For us, customer satisfaction and confidence in our products comes first. To meet your high standard, we conduct our own in-house laboratory tests. These tests enable us to ensure that our fastening solutions meet the highest requirements.



Sustainability

We already offer two types of fully sustainable hook fasteners: a bio-based version by applying the already well-known use of PLA materials based on lactic acid compounds and a biodegradable version employing a new and innovative technology that makes biodegradability possible in polyolefins.

Consideration for mono-component products is a viable option for many projects, allowing for both reduced raw material consumption and simplified recycling opportunities. We also strive to incorporate more recycled material within our products.



Lightweight

We provide you with high-performance solutions that enable weight-optimised fastening alternatives. Less material reduces the amount of resources required to manufacture the product while also supporting a better logistic and end-user carbon footprint.

Technologies

We place considerable emphasis on research and development as well as application engineering. A large team of scientific experts in chemistry, biology and physics, combined with broad experience, results in about 80 patent families and 454 active patents as well as new products of uncompromising quality and maximum reliability.

To offer first-class solutions for every challenge we use our know-how in the fields of polymer and textile science, adhesives and adhesive coatings as well as surface technology, profile extrusion, injection moulding and converting. And if it turns out that your own individual solution is required, we'll look for new ways to find the exact target-oriented answer.

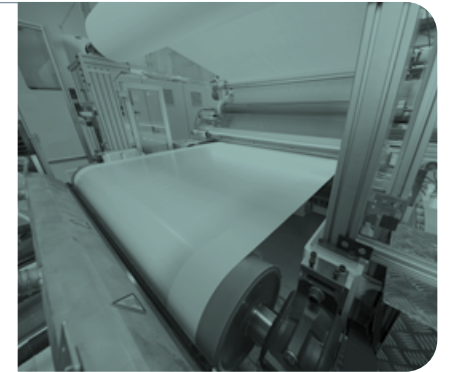
Polymer & textile science

What colour would you like? Our textile chemistry know-how allows us to dye our products in almost any shade imaginable, with the dye withstanding up to 1000 high temperature washes (up to 95 °C). Do you have any special requirements? Our products and finishes can be tailored as you need them: high temperature wash-resistant (up to 95 °C), weldable, antimicrobial, soft and skin-friendly (certified according to OEKO-TEX®), electrically conductive and anti-static as well as flame-retardant for the special requirements of the automotive and aircraft industries.



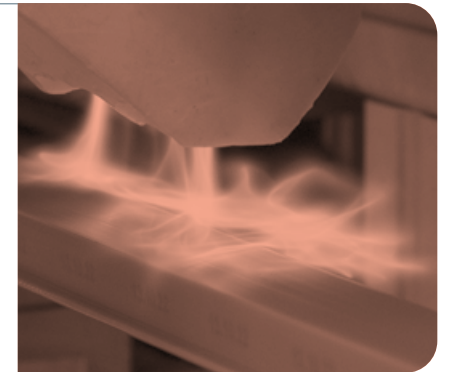
Adhesives & adhesive coatings

In cases where our fastening systems need to be bonded to other surfaces, our expertise ensures a secure hold. We can adapt the formulations of adhesives or develop them ourselves and apply a wide variety of adhesive types in any grammage as well as in large-scale production. Depending on the surface, further processing or application, we use one- and two-component systems as well as pressure-sensitive adhesive systems. Self-adhesive fasteners are available with an easily removable overhanging cover film, while certain adhesive-coated fasteners are also available without cover film.



Surface technology

Only through the correct connection to the surface can the selected closure system develop its full performance. To achieve this, we use various surface treatment methods: atmospheric pressure and low-pressure plasma, corona treatment and gas phase fluorination. We also offer special coatings for improved bonding.



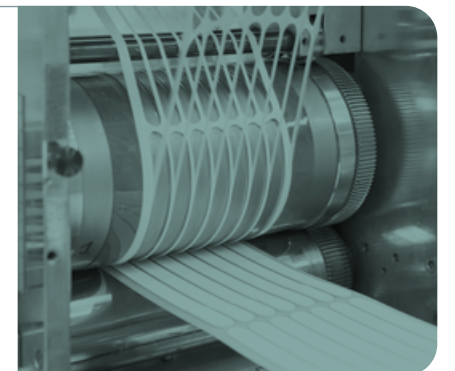
Profile extrusion & injection moulding

Profiled in extrusion technology: We produce profile shapes from all common plastics on our own profile extrusion lines according to your requirements. During the extrusion process, we can apply fastener systems inline using our expertise in surface and adhesive technology. Our application and customer-specific injection-moulded parts can also be supplied as complete fastener assemblies. This enables us to produce large quantities of fastener systems in consistently high quality in the shortest possible time.



Converting

Extras or special requirements? Just let us know what your constraints and wishes are in your desired solution. There are no limits to our converting options: whether punching, cutting, sectioning, laminating or coating, in large and small series. We can supply individual pre-cut parts and pre-cut parts on continuous and perforated rolls or on clips and profiles. For cut goods we offer you different spooling and winding options. Our basic products are available in a variety of combinations in back-to-back lamination processing.



■ Key industries served by our fastening solutions, with more found every day:

From affixing floor mats in cars, to 5G routers on outdoor windows, to baby and adult diaper closure systems, our customised repositionable and reclosable fastening solutions can be found everywhere. Even though you usually cannot see them, they are indispensable in our daily lives, reliably ensuring confidence in secure, adjustable closures.

■ Automotive

Aesthetic and lightweight fastening solutions for headliner, interior, trunk and car seats as well as floor and trunk mats.

A separate brochure is available for this industry.



■ Commercial vehicles

Extra durable fastening solutions for headliners, interior, side panels, storage compartment floors, rubber mat fastening and car kits.



■ Marine and recreational vehicles

Additional aesthetic and durable fastening solution in wet and outdoor conditions for ceiling and wall panels, indoor and outdoor cushions, floor mats and interior and exterior trims.



■ Railway

Fastening solutions for train and tram interior and in heavy-duty track bedding.



■ Aircraft

Fastening solutions for lightweight and durable seating, flooring, interior panelling and insulation.

A separate brochure is available for this industry.



■ Medical and orthopaedic technology

Fastening solutions for patient-related applications such as disposable products, ostomy and incontinence systems, and bandages and orthotics. As well as fastening solutions for technical applications like diagnostic equipment, surgery, and technical equipment.

A separate brochure is available for this industry.



■ Personal care

Disposable and skin-friendly focused solutions for baby and adult diaper closures.

A separate brochure is available for this industry.



■ Consumer electronics

Exceptionally reliable and reusable fastening solutions for dashcams, WiFi routers and internet boxes, panels and flexible displays as well as cable ties.

A separate brochure is available for this industry.



■ Consumer supplies

Easy-to-use fastening solutions for functional textiles, sporting equipment and industrial workwear.






■ Industrial supplies

Fastening solutions for building technology, furniture and interior design, renewable energies, the construction industry, abrasives and polish fastening as well as cleaning, cargo and container management, white goods, and agricultural ties for vining plants, young trees, and protective fruit and vegetable covers.



The right fastening solution for your application:

Here is a brief listing of typical product combinations which we use to provide the perfect solution for your application.

	Type of fastener							
	Klettostar® (15147)	Klettoplast® (39149)	Klettolastic® (90191)	Duotec® (75763)	Microduotec® (25540)	Microplast® (95641)	Pressotex® (75161)	Gecko® (70140)
When used with indicated counterpart	Klettostar® brushed loop (15244)	Klettoplast® loop (53248)	Klettolastic® loop (90298)	Duotec® (75763)	Microduotec® (25540)	Spunbond PP 18 g/m²	Velour	Suitable smooth surface
Standard finished widths (approx.)	9 to 210 mm 3/8" to 8-1/4"	25 mm 1"	30 to 50 mm 1-3/16" to 1-15/16"	12 to 75 mm 15/32" to 2-15/16"	25 to 410 mm 1" to 16"	13 to 410 mm 1/2" to 16"	9 to 125 mm 3/8" to 4-15/16"	15 to 100 mm 9/16" to 3-15/16"
Basic weight range (g/m², by product code)	335	440	495	880 to 1080	230	85	308	300
Fastener thickness (approx. mm, without counterpart, without adhesive)	2	2	2.4	2.9 to 3.1	0.57	0.32	1.5	0.35
Fastener thickness (approx. mm, with indicated counterpart, without adhesive)	2.8 to 3.5	3.0 to 4.0	3.0 to 4.0	4.0 to 4.5	1	0.4	1.9 to 2.5	0.35
 Peel strength (T-peel, N/cm)								
 Shear strength (N/cm²)								
 Tensile strength (N/cm²)								
Retained performance (% per 1000 cycles)	> 30 % at 5000	> 80 % at 1000	> 70 % at 1000	Dependent upon application	Dependent upon application	Dependent upon substrate	> 25 % at 100	> 90 % at 1000
Colour options	Multiple	Natural, white	Multiple	Black, white	Natural	Black, natural, blue	Black, white	Natural
Temperature stability (approx. maximum)	100 °C / 212 °F	100 °C / 212 °F	90 °C / 195 °F	90 °C / 195 °F	90 °C / 195 °F	90 °C / 195 °F	130 °C / 265 °F	150 °C / 302 °F
Flammability standard versions	++			++				
Material	PA or PES	PA	PA	PP hook / PA-PU base	PP	PP	PP/PA	Silicone
Available in roll, pre-cut parts, and on clips/extruded profiles	All products available in multiple forms – contact us for assistance				All products available in multiple forms – contact us for assistance			

PA: Polyamide
PES: Polyethersulfone
PP: Polypropylene

+: Flame-retardant versions available
++: Pass 12 second vertical burn and
worst-case criteria

Fastener engagement fabrics			
Velour® (88293)	Velour® (88297)	Klettostar® (15244)	Aquastar® (43240)
18 to 1500 mm 3/4" to 59-1/16"	9 to 1500 mm 3/8" to 59-1/16"	10 to 200 mm 3/8" to 8"	105 mm 4"
140	220	340	314
1	1.5	2.6	2.6
Black, white	Multiple	Multiple	White, blue
100 °C / 212 °F	100 °C / 212 °F	100 °C / 212 °F	100 °C / 212 °F
PA	PA	PA	PA

Only for indication purposes, not suitable for specification.
We reserve the right to make technical changes.

Duotec®: Self-engaging mono-component mushroom-shaped fasteners.



Duotec®

- High, durable tensile strength
- Can be opened and closed again without any damage for repair purposes
- Can be positioned and locked securely: the fastener will not engage until the defined pressure point has been overcome
- Safe assembly: acoustic and haptic feedback when it engages

Available in three versions:

- **Clip solution:** quick and easy to install, compensates for installation tolerances
- **Profile solution:** can be glued to the body, can be adapted to gap dimensions, individual solutions possible
- **Self-adhesive solution:** quick and easy to position

Example applications:

- Commercial vehicles: headliner, interior, side panels
- Railway: interior
- Industrial supplies: building technology, furniture & interior design, renewable energies, construction industry
- Marine & recreational vehicles: ceiling & wall panels, interior & exterior trims



Mididuotec®

- Small fastening thickness
- Allows more opening and closing cycles
- Can be positioned and locked securely: the fastener will not engage until the defined pressure point has been overcome
- High, durable tensile strength
- Can be opened and closed again if necessary without destroying components
- Self-adhesive, available as geometric shapes and can be combined with profiles

Example applications:

- Industrial supplies: cargo & container management, white goods



Microduotec®

- Ultra-thin
- Lint-free fastener, providing a secure and hygienic closure
- High number of opening and closing cycles
- Can be fastened easily and securely: the fastener provides haptic feedback once the pressure point has been overcome

Example applications:

- Medical & orthopaedic technology: ostomy systems

Kletten®:

Classic hook-and-loop fasteners with numerous product versions.



Klettostar®

- Premium quality
- High number of opening and closing cycles
- Flame-retardant, making it suitable for a variety of applications
- Self-adhesive and available as geometric shapes
- Available on profiles
- Back-to-back laminations possible
- Loop also available in 100% polyester
- According to OEKO-TEX® Standard 100, class 1 tested for harmful substances

Example applications:

- Commercial vehicles: headliner, interior, side panels, storage compartment floors, rubber mat fastening, car kits
- Consumer supplies: functional textiles, sporting equipment, industrial workwear
- Industrial supplies: building technology, furniture & interior design, abrasives & polish fastening, cleaning, cargo & container management
- Marine & recreational vehicles: indoor & outdoor cushions, floor mats



Klettolastic®

- Extremely high number of opening and closing cycles
- Highly elastic: can stretch by up to 80%
- Wash-resistant
- Constant elasticity even after several stretching cycles
- According to OEKO-TEX® Standard 100, class 1 tested for harmful substance

Example applications:

- Industrial supplies: building technology



Klettolastic® pneumatic post

- Enormously high durability
- Can be shaped into rings of any size
- High density
- High elasticity

Example applications:

- Industrial supplies: building technology



Klettostar® Super

- For damp or wet environments
- Resistant to UV rays and salt water
- Available on profiles and clips
- Self-adhesive and available as geometric shapes
- Loop: can be washed at up to 90°C – even with aggressive chemicals, especially with polyester yarns

Example applications:

- Consumer supplies: functional textiles, sporting equipment, industrial workwear
- Industrial supplies: cleaning



Klettostar® loop unbrushed

- Flame-retardant
- Very high tensile strength
- Available on profiles
- Can be repositioned and reclosed several times: enables selective disengagement and reuse after carrying out repairs and service work

Example applications:

- Commercial vehicles: headliner
- Railway: interior



Aquastar® loop R (Raschel-knitted)

- High tear resistance
- High temperature wash-resistant (up to 95°C), due to high dimensional stability
- Will endure over hundreds of wash cycles
- High stability with oxidising or cleaning agents and disinfectants or those containing chlorine
- The R Super version can be dyed and remains washfast after dyeing: advantageous when making a distinction between different wards in hospitals

Example applications:

- Industrial supplies: cleaning

Microplast®:

Ultra-thin film with microscopic fastening elements.



Microplast®

- Self-adhesive, weldable
- Available in PP and PA
- Flame-retardant, sewable
- Available on plastic profiles and as geometric shapes
- Equal peel and shear forces in all directions
- Universal hooks with direction-independent functionality

Example applications:

- Commercial vehicles: interior, car kits
- Consumer supplies: sporting equipment
- Industrial supplies: building technology, furniture & interior design, abrasives & polish fastening, cleaning, cargo & container management
- Railway: interior, track bed
- Marine & recreational vehicles: floor mats

Microplast® Soft

- Excellent performance on all velours and nonwovens used in the diaper industry as well as on the textile backsheet
- Especially soft to improve comfort

Example applications:

- Personal care: diaper fastening system

Binder® BioHook PLA

- PLA-based: made of approx. 50% bio-based content. The compound with natural mineral filler is manufactured from certified compostable plastic materials according to the EN 13432 standard.

Example applications:

- Personal care: diaper fastening system
- Industrial supplies: agricultural ties for vining plants, young trees, protective fruit, vegetable covers

Binder® BioHook PP

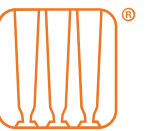
- Polyolefin-based: certified biodegradability according to BSI PAS 9017:2020

Example applications:

- Personal care: diaper fastening system
- Industrial supplies: agricultural ties for vining plants, young trees, protective fruit, vegetable covers

Gecko®:

Silicone film that sticks to surfaces like a gecko.

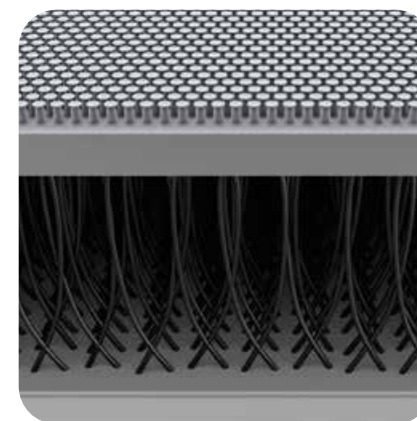
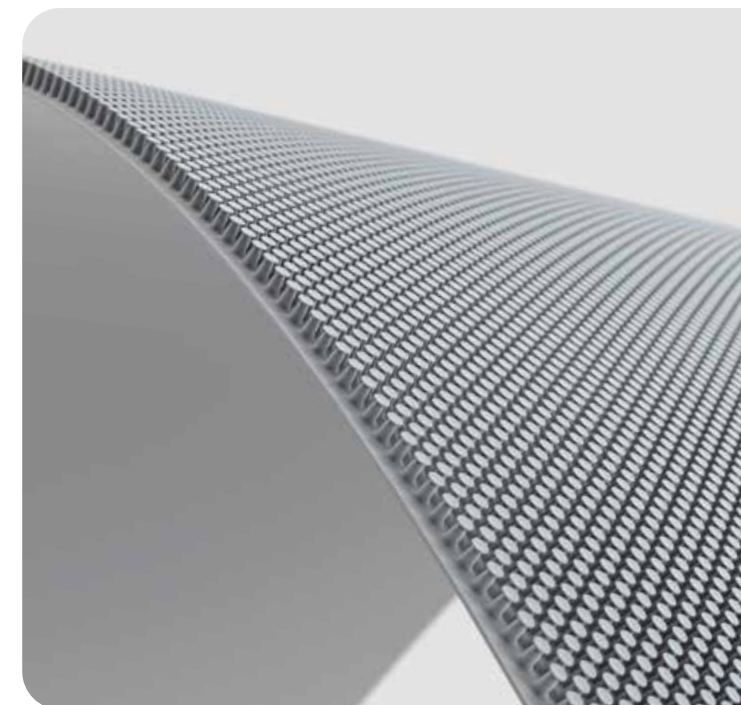


Gecko® Tape

- Extremely high tensile and shear forces particularly on smooth, clean surfaces
- Extremely high number of opening and closing cycles
- Reusable: can be used as often as you like
- Requires no dedicated counterpart
- Instant full adhesive force
- Silicone material makes it highly resistant to external influences (UV rays, chemicals, etc.)
- Residue-free removal (no adhesive residue), no need for tools and solvents
- Easy to clean
- Temperature range -50 °C to +150 °C

Example applications:

- Consumer electronics: WiFi routers & internet boxes, panels & flexible displays
- Medical & orthopaedic technology: fixing disposable products



Gecko® Plus

- Adapts and adheres strongly, reliably and securely even to slightly rough, wavy and curved surfaces and components

Example applications:

- Consumer electronics: dashcams, WiFi routers & internet boxes, panels & flexible displays



Gecko® Flex

- Adapts to curved or domed surfaces
- Suitable for difficult and complex applications
- Two-component system: flexible attachment as the hook-and-loop can be decoupled

Example applications:

- Consumer electronics: dashcams, WiFi routers & internet boxes, panels & flexible displays

Pressotex®: Woven mushroom-shaped fastener.



- High tensile, peel and shear strength
- Self-adhesive and available as geometric shapes
- Available on profiles
- Back-to-back laminations possible
- High fastening forces even with light pressure
- According to OEKO-TEX® Standard 100, class 2 tested for harmful substances

Example applications:

- Commercial vehicles: headliner, interior, side panels, rubber mat fastening, car kits
- Consumer supplies: functional textiles, sporting equipment, industrial workwear
- Industrial supplies: building technology, furniture & interior design, renewable energies, construction industry, abrasives & polish fastening, white goods
- Railway: interior, track bed
- Marine & recreational vehicles: ceiling & wall panels

Velour: Light, soft and skin-friendly.

- Low thickness and weight for sustainable solutions
- High number of opening and closing cycles
- Available as broadcloth for the efficient production of cost-effective fasteners
- According to OEKO-TEX® Standard 100, class 2 tested for harmful substances
- Skin-friendly

Example applications:

- Commercial vehicles: interior, side panels, rubber mat fastening, car kits
- Consumer supplies: functional textiles, sporting equipment, industrial workwear
- Industrial supplies: building technology, furniture & interior design, renewable energies, construction industry, abrasives & polish fastening, cargo & container management, white goods
- Railway: interior, track bed
- Marine & recreational vehicles: ceiling & wall panels



Binder SoloHook®: Woven, pin-like fastener.



- Maximum safety
- Attractively priced: no counterpart required on floor assembly
- Strong design
- Weight-saving
- Gentle on the material for the floor assembly
- Made from one material (polyester) so easy to recycle
- Easy and safe repositioning of the mat for cleaning purposes

Example applications:

- Automotive: interior, trunk, floor & trunk mats
- Marine & recreational vehicles: floor mats

Special products: We have the basic products and technologies and also the know-how to develop special products from them.



Binder FlomaFix®

- Fastening system for floor mats: loop on the floor mat, hooks on the plates
- Strong design
- Maximum safety: certified by external institutes and tested over many years
- Durable, secure fastening
- Simple and universal because not dependent on the property of the floor assembly
- Easy and safe repositioning of the mat for cleaning purposes

Example applications:

- Automotive: floor & trunk mats
- Commercial vehicles: interior



Klettfix®

- Hook-and-loop as tape welded with eyelet (made of plastic or metal)
- Simplified handling with an eyelet
- Tailor-made to customer specifications
- Individual print upon request
- High number of opening and closing cycles
- Available with anti-slip coating
- The Klettfix® variant consisting of Klettostar® is according to OEKO-TEX® Standard 100, class 2 tested for harmful substances
- Wash-resistant

Example applications:

- Commercial vehicles: car kits
- Consumer supplies: sporting equipment
- Industrial supplies: furniture & interior design, white goods

Quick & easy fastener

- Back-to-back solution
- Tailor-made to customer specifications
- Depending on the version, available with very high fastening strength or ultra-thin fastening height
- It is possible to integrate sensor technology into the mushroom-shaped fastener
- Flame-retardant version available
- Compliant with the RoHS Directive (2011/65/EU RoHS 2 and 2015/863/EU RoHS 3) for electronic components

Example applications:

- Commercial vehicles: car kit
- Industrial supplies: white goods

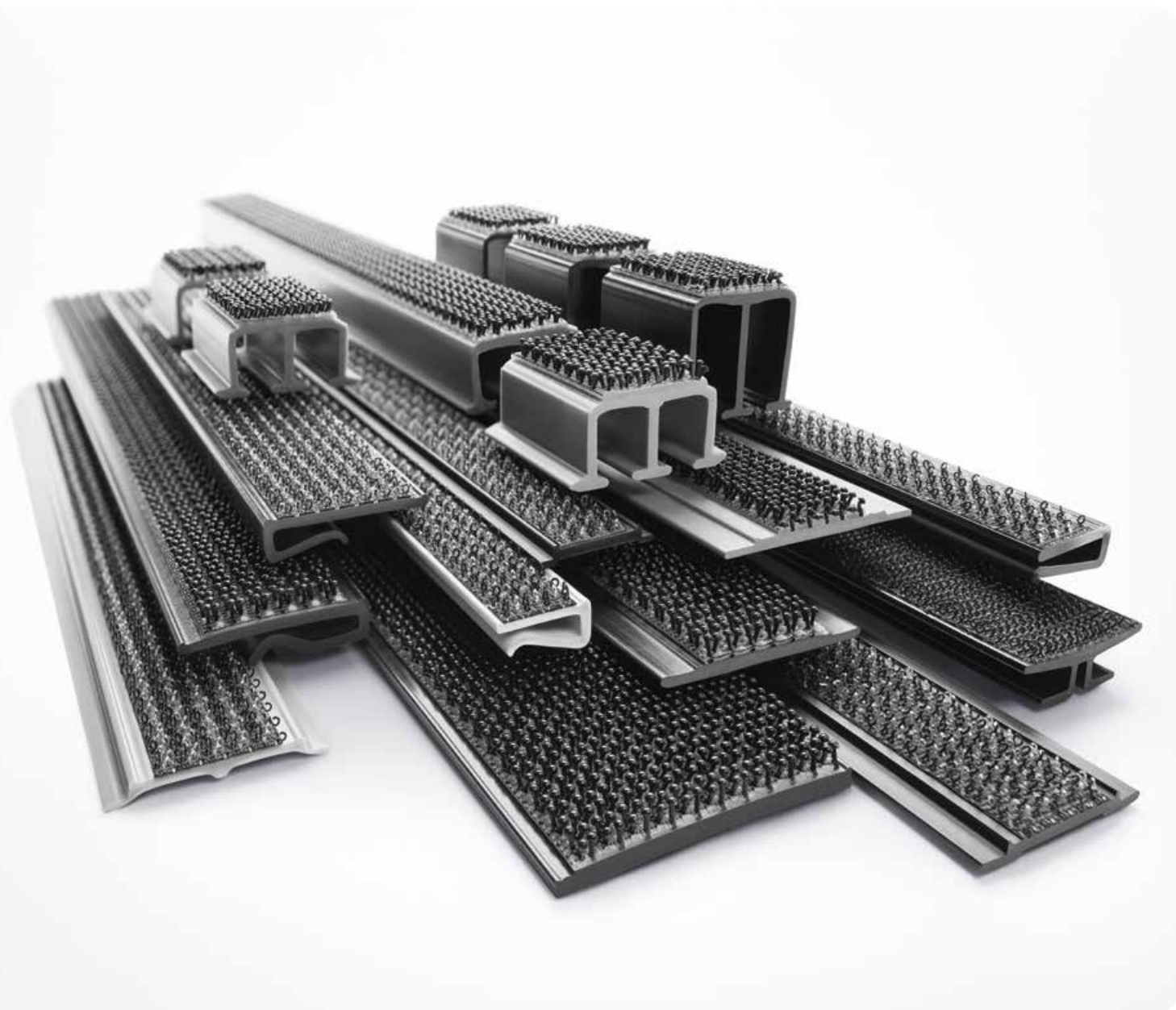


Profiles

- Plastic profiles in combination with our fasteners
- Extruded plastic profiles, manufactured with our own tools
- For indoor and outdoor use
- Long service life
- Resistant to UV rays, ageing, water and chemicals
- Flame-retardant version available
- Individual profile geometries and customised functionality possible
- Adaptable to gap dimensions

Example applications:

- Commercial vehicles: headliner, side panels
- Industrial supplies: building technology, furniture & interior design, renewable energies, construction industry, cleaning
- Railway: interior
- Marine & recreational vehicles: ceiling & wall panels, indoor and outdoor cushions



Clips

- Injection-moulded products with our fasteners
- Flexible design with our own tools
- Securely engaged
- Quick fastening without rattling
- Tool-free installation
- Rotation-proof design
- Available for various clamp thicknesses and hole diameters
- Can be combined with various Binder fastening systems

Example applications:

- Commercial vehicles: headliner
- Industrial supplies: building technology, furniture & interior design, renewable energies, construction industry

Interested in Binder's fastening solutions?

Contact us to find out more about Binder and our latest innovations.
Phone: +49 7031 683 0 | E-mail: sales@binder.de