ANTALA

DGE GROUP

ANTALA

Merbenit®

There is Merbenit in there.
Your industry product.

Bonding and sealing
for industry

merz+benteli ag

We are bonding with reliability

The Merbenit range includes general and specialist products specifically designed to support processing and optimise overall system performance. The products are used in many industrial branches as well as in automotive construction and shipbuilding.

«Innovative product development and cutting-edge manufacturing methods are the keys to our success. Merbenit adhesives support us in these areas.»

Christoph Wintsch, Head mech. development household
Schulthess Maschinen AG

The Merbenit range includes one- and two-component sealants and adhesives that cure to elastomers after application. They can be applied manually or by using automated dispenser systems. Merbenit is available in a variety of standard packaging.

merz+benteli develops and produces Merbenit exclusively in Switzerland.

Table of contents

Technology sets Merbenit apart

Merbenit products are based on the most advanced SMP technology and are made from specially selected raw materials.

Merbenit products combine exceptional strength with elasticity, adhere to a wide variety of materials and are all environmentally friendly.

merbenTECH is merz+benteli's most advanced SMP technology. It is patented, registered as a trademark and produced exclusively by merz+benteli in Switzerland.

Major advantages

Combine exceptional strength with elasticity

Adhere to a variety of substrates and surfaces

Adhesion promoter usually not required

Compatible with paints

Powder coating up to 240°C with Merbenit PC200

Free of isocyanates, solvents, halogens and silicone

Merbenit sealants

Merbenit sealants and adhesives cure to permanent elastomers.

They are suitable for joints and sealed bondings, making them flexible, dynamically loadable and resistant to environmental influences.

System benefits

Support dynamic loads

Bond to a wide range of materials

Reduce vibrations

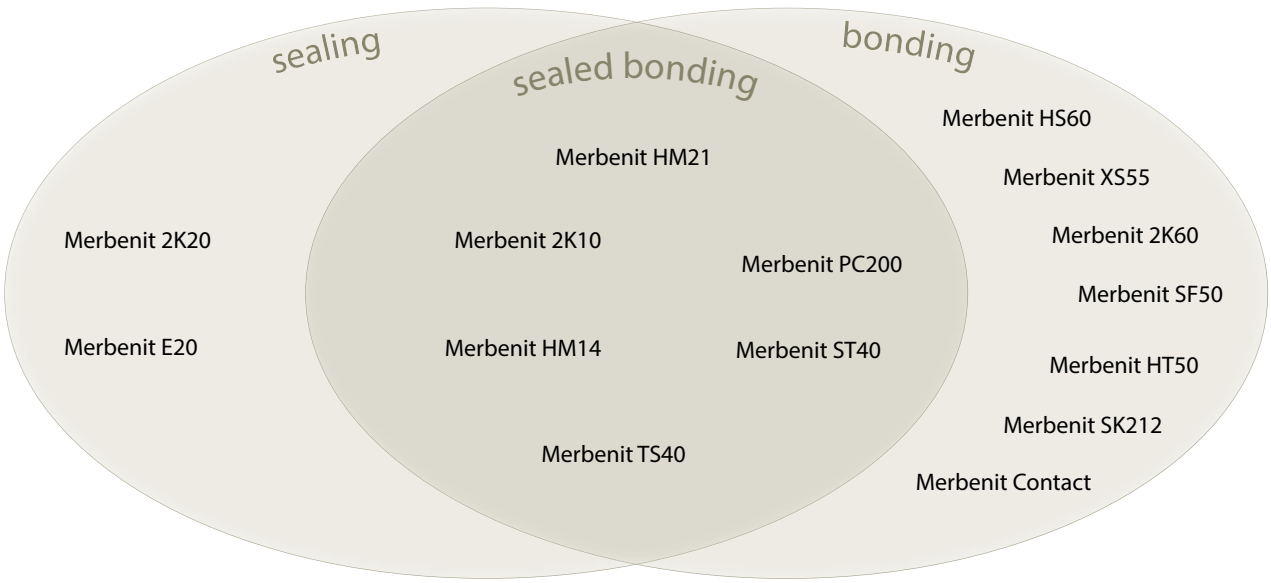
UV and weather resistant

Processing advantages

Minimal surface preparation – adhesion promoter usually not required

Environmentally friendly, only minimal additional safety measures required

Compatible with paints



Universal sealants

Merbenit universal sealants are well-balanced and extremely economical. The range includes a transparent sealant, an option in standard colours and a version suitable for heavy loads.

Merbenit HM14 and the transparent Merbenit TS40 are designed for various types of sealing and bonding. Both sealants exhibit well-balanced mechanical qualities.

Merbenit HM21 is suitable for use with heavy loads thanks to its 2 N/mm² tensile strength and 400% elongation at break. It is also suitable for extensive surface areas thanks to the long tooling time of 30 minutes.

Applications

Sealing of casing and covers

Sealing and bonding of displays and windows

Sealing and bonding of decorative panels and functional elements

	Merbenit HM14	Merbenit TS40	Merbenit HM21
Consistency, DIN EN ISO 7930	stable, ≤ 3 mm	stable	stable, ≤ 3 mm
Tooling time	max. 20 minutes	max. 6 minutes	max. 30 minutes
Shore A hardness, DIN 53505, storage 21 days	40	42	45
Tensile strength, DIN 53504 S2, storage 7 days	approx. 1.3 N/mm²	approx. 2.4 N/mm²	approx. 2.0 N/mm²
Elongation at break, DIN 53504	approx. 300%	approx. 250%	approx. 400%

Measurement at + 23°C and 50% rh

2K sealants

After mixing two components, Merbenit 2K sealants cure to elastomers. The mixing process is not affected by humidity and temperature, which opens up other fields of application not available to one-component sealants.

Merbenit 2K10 is ideal for the flexible bonding of extensive surface areas with thin adhesive layers; even air-tide plates are possible.

Merbenit 2K20 is a self-levelling potting compound based on two-component technology. It is suitable for potting casings, where the compound protects against moisture, corrosion and vibration.

Merbenit 2K20 can also be used as a compression seal for various types of casing.

Applications

Sealing and bonding of casing and covers

Bonding of panels

Compression seals

Potting of components

	Merbenit 2K10	Merbenit 2K20
Consistency, DIN EN ISO 7930	stable	self-levelling
Tooling time	max. 30 minutes	max. 30 minutes
Shore A hardness, DIN 53505, storage 21 days	45	30
Tensile strength, DIN 53504 S2, storage 7 days	approx. 1.8 N/mm^2	approx. 1.0 N/mm^2
Elongation at break, DIN 53504	approx. 300%	approx. 300%

Measurement at + 23°C and 50% rh

Lightweight sealant

The pioneering SMP sealant features the patented MerbenTECH technology and is much lighter than comparable competitor products.

Merbenit E20 has a density of 0.70 g/cm³ and is 50% lighter than other sealants. It reduces vibration and noise effectively and offers thermal insulation.

Merbenit E20 was designed for the construction of vehicles but is also suited for industrial application such as compression seals as well as seam and joint sealing.

Applications

Seam seals

Joint seals

Compression seals

	Merbenit E20
Consistency, DIN EN ISO 7930	stable
Tooling time	max. 5 minutes
Shore A hardness, DIN 53505, storage 21 days	36
Tensile strength, DIN 53504 S2, storage 7 days	approx. 1.5 N/mm²
Elongation at break, DIN 53504	approx. 120%

Measurement at + 23°C and 50% rh

Merbenit adhesives

Merbenit adhesives cure to highly adhesive elastomers. That is why they are suitable for statically or dynamically stressed bondings.

Merbenit adhesives absorb tension or offset the differing thermal expansion experienced by combined materials. They also balance out manufacturing tolerances.

Typical industrial applications include solid, flexible bonding of reinforcing profiles, loaded components, covers and windows.

System benefits

Support of dynamic loads

Bonding of many different materials

Reduction of vibration

UV and weather resistant

Application benefits

Minimal surface preparation – adhesion promoter usually not required

From long open time to high initial tack

Offset of manufacturing tolerances

Environmentally friendly, only minimal additional safety measures required

Processing benefits

Compatible with paints

Powder coating up to 240°C with Merbenit PC200

Suitable for hybrid joints such as bonding / spot welding and bonding / riveting

Universal adhesives

Merbenit HS60 is extremely versatile. It is stable, exhibits minimal creep and is approved for use in foodstuff related areas as well as in ventilation and air-conditioning systems.

Merbenit HS60 is well-suited for nearly all applications and is particularly effective for constantly loaded joints, ventilation and air-conditioning systems as well as catering equipment.

Applications

Sealing and bonding of air ducts and appliances

Sealing and bonding of covers and basins

Sealing and bonding of fittings

	Merbenit HS60
Consistency, DIN EN ISO 7930	stable
Tooling time	max. 10 minutes
Shore A hardness, DIN 53505, storage 21 days	60
Tensile strength, DIN 53504 S2, storage 7 days	approx. 2.3 N/mm^2
Elongation at break, DIN 53504	approx. 250%

Measurement at + 23°C and 50% rh

Shear strength in comparison

Fast curing adhesives

After application, fast-curing Merbenit adhesives build up to a high tensile strength of 3 N/mm², allowing the compounds to be quickly processed and loaded.

Merbenit SF50 can be applied universally. Thanks to its ability to build up adhesive strength quickly and its excellent tensile strength, it is particularly well-suited for use in heavily loaded and dynamically stressed joints.

Merbenit PC200 is designed for thermo-lacquering and powder coating. Its 240°C thermal resistance significantly shortens annealing time and results in lower production costs.

Merbenit 2K60 is a two-component fast curing adhesive that achieves a tensile strength of 1.3 N/mm² after just one hour. It is not affected by humidity and temperature which makes it possible to create large, flexible bonds, even with non-permeable materials.

Applications

Bonding of synthetic or sheet metal covers

Bonding of reinforcing profiles

Bonding of fittings

	Merbenit SF50	Merbenit PC200	Merbenit 2K60
Consistency, DIN EN ISO 7930	stable	stable	slightly thixotropic
Tooling time	max. 8 minutes	max. 5 minutes	max. 4 minutes
Shore A hardness, DIN 53505, storage 21 days	50	57	48
Tensile strength, DIN 53504 S2, storage 7 days	approx. 3.0 N/mm²	approx. 2.8 N/mm²	approx. 3.0 N/mm²
Elongation at break, DIN 53504	approx. 300%	approx. 250%	approx. 150%

Measurement at + 23°C and 50% rh

Adhesives with high initial tack

Using Merbenit adhesives with high initial tack means that it is no longer necessary to fix the adherents. In certain cases, immediate processing is possible.

Merbenit HT50 can be applied universally and stands out thanks to its excellent initial tack and strength, which help to support high loads and flexible bonding.

Merbenit SK212 was designed for the direct glazing of windscreens but also has a proven reliability in various industrial applications. Thanks to its high viscosity, in comparison with the complete Merbenit range, Merbenit SK212 has the highest initial tack.

Applications

Bonding and sealing of synthetic or sheet metal covers

Bonding of reinforcing profiles

Bonding of fittings

Direct glazing

	Merbenit HT50	Merbenit SK212
Consistency, DIN EN ISO 7930	stable	stable
Tooling time	max. 8 minutes	max. 15 minutes
Shore A hardness, DIN 53505, storage 21 days	50	55
Tensile strength, DIN 53504 S2, storage 7 days	approx. 2.2 N/mm^2	approx. 2.9 N/mm^2
Elongation at break, DIN 53504	approx. 400%	approx. 300%

Measurement at + 23°C and 50% rh

High-strength elastic adhesive

Conventional elastic adhesives are at their limits when it comes to elements with different expansion coefficients or high mechanical pressures.

With a tensile strength of 5 N/mm² and an elongation at break of 500%, Merbenit XS55 is perfect for low-stress, high-strength bonding.

Thanks to its high flexibility, larger elements can be adhered and adhesive thickness can be minimised.

Loads are offset by the adhesive, opening up new possibilities for designs that use thinner, lighter materials.

Applications

Bonding of reinforcing profiles

Bonding of covers

Bonding of fittings

	Merbenit XS55
Consistency, DIN EN ISO 7930	stable
Tooling time	max. 8 minutes
Shore A hardness, DIN 53505, storage 21 days	56
Tensile strength, DIN 53504 S2, storage 7 days	approx. 5.0 N/mm²
Elongation at break, DIN 53504	approx. 500%

Measurement at + 23°C and 50% rh

Surface adhesives

Merbenit Contact

Merbenit Contact is a self-levelling adhesive that does not shrink. The adhesive is spread in thin layers onto either one or both surfaces. It is ideal for use with thin walled materials such as sheet metal and stiff or flexible plastics. Like all Merbenit products, Merbenit Contact is free of solvents and an environmentally friendly alternative to common contact adhesives.

Merbenit ST40

The sprayable Merbenit ST40 is designed for sealing seams and joints as well as extensive surface areas. Various surface textures can be achieved using the appropriate dosing system.

Applications

Bonding of panels

Bonding of decorative elements

Bonding of synthetic covers

Seam and joint sealing with texture

	Merbenit Contact	Merbenit ST40
Consistency, DIN EN ISO 7930	self-levelling	pasty, sprayable
Tooling time	max. 10 minutes	max. 25 minutes
Shore A hardness, DIN 53505, storage 21 days	45	32
Tensile strength, DIN 53504 S2, storage 7 days	approx. 2.8 N/mm^2	approx. 1.5 N/mm^2
Elongation at break, DIN 53504	approx. 150%	approx. 300%

Measurement at + 23°C and 50% rh

Service from merz+benteli

Assistance during your product development
We support our customers' product management needs with services based on an extensive knowledge in the field of chemistry and many years' experience across a variety of branches and applications. We add value to our customer's system design, overall system performance, manufacturing, cost optimisation and quality management processes.

The perfect sealant and adhesive for every application
In addition to the Merbenit range, we also offer a wide range of other sealants and adhesives for specific applications and requirements. We work together with our customers to develop comprehensive customised sealing and bonding solutions.

merz+benteli - a tradition of innovation
merz+benteli is a leader in the field of elastic sealants and adhesives for the construction and manufacturing industries as well as for home and office use.

merz+benteli's core competences include the development and production of silane-modified polymers and silicone as the foundations for high-performance and environmentally friendly sealants and adhesives.

The company's success is grounded in a series of technological innovations
1930 first fully synthetic adhesive

1958 first one-component polysulfide sealant for construction

1969 first two- component polysulfide sealant for construction

1986 first sealant and adhesive made from silane-modified polymers in Europe

2015 first sealants made predominantly from renewable resources and first SMP sealant with 50% weight reduction

DGE GROUP

ANTALA

www.antala.es

C/ Energía 96
CP 08940
Cornellá de Llobregat
Barcelona - España

93 474 66 66
93 474 06 60

merz+benteli ag

Freiburgstrasse 616
CH - 3172 Niederwangen
Phone +41 31 980 48 48
Fax +41 31 980 48 49
info@merz-benteli.ch
www.merz-benteli.ch