



ergo.[®] instant adhesives
Fast-bonding all-rounders

Kisling

Fast, secure, universal

Joining what belongs together, and essentially doing it independently of the substrate material: ergo.[®] instant adhesives achieve excellent bonding results in practically every industry, as well as for repairs and maintenance. They are even used on difficult-to-bond materials, forming high-strength bonds that are resistant to aging.

ergo.[®] instant adhesives ensure an effortless bonding performance on metals, plastics, elastomers, wood, plaster, stone, ceramics and many other substrates. These solvent-free, extremely fast-curing one-component products can be used in a wide range of applications, even under difficult conditions.

The former instant adhesives – which were first developed in the 1950s – cannot be compared with the products made today. These have been systematically improved and designed to meet new requirements.

In short, ergo.[®] fast-curing adhesives are impact-resistant, flexible, temperature resistant, unaffected by variations in temperature or moisture, depending on your requirements.

Advantages

- + one-component, easy to use
- + fast cure, short cycle times are possible
- + universal, suitable for a multitude of material combinations
- + efficient, high strength achieved with tiny quantities
- + post-assembly fixing is possible
- + also bonds porous surfaces
- + high moisture resistance
- + high temperature resistance
- + patented ergo.[®] twist-open dispensing cap
- + no clogged nozzles
- + fine dispensing tips available
- + simple, practical one-handed operation

Instructions for using ergo.[®] instant adhesives

Cleaning

- For optimum bond strength, bonded surfaces must be free of oil, grease and other contaminants. We recommend ergo.[®] 9195 Cleaner to prepare plastics and ergo.[®] 9190 Cleaner to prepare metals.
- Where feasible, prepare surfaces by mechanical abrasion (sanding, grinding, sandblasting, etc.).
- Clean prior to mechanical treatment and after again.
- With elastomers, freshly cut surfaces must be bonded. Remove any plasticizers or traces of talc.

Dispensing

- Apply the adhesive to one side of the substrate (drops or continuous bead).
- This can be done by applying the product directly from the original packaging or using dosage dispensers, such as dispensing tips or dosing systems.
- Avoid using too much adhesive and apply only as much as is absolutely necessary. Immediately assemble parts and briefly press together by hand, or use clamps.

Storage

- Storage at low temperature ($\leq 25^{\circ}\text{C}$) ensures storage stability for one year. Storage at temperature down to -18°C is feasible and has a stabilizing effect.
- Tip: Let the container come to room temperature before opening. Close container tightly after use. Do not cool again.

Universal adhesives: Proven workhorses

The ergo.[®] universal adhesive range offers a neat solution for many standard applications involving a wide range of different materials and is a very popular solution in furniture making and window construction, as well as for repairs and DIY projects.

Product range Universal adhesives

ergo.[®] 5011 well-balanced universal product

Viscosity, rate of curing and strength is well balanced.

Suitable for most materials and applications.

NSF ANSI 61 certified, NSF P1 listed.

ergo.[®] 5012 standard type

Fast cure.

Suitable for a wide variety of applications needed for repairs and DIY projects.

Available in a practical 5 g mini bottle with drop-pumping system.

ergo.[®] 5705 medium viscosity

About 500 mPas.

Good compromise between low-viscosity and high-viscosity products.

ergo.[®] 5014 high viscosity

General purpose application also used to bond porous or uneven surfaces.

Particularly well suited for repairs, furniture making and window construction.

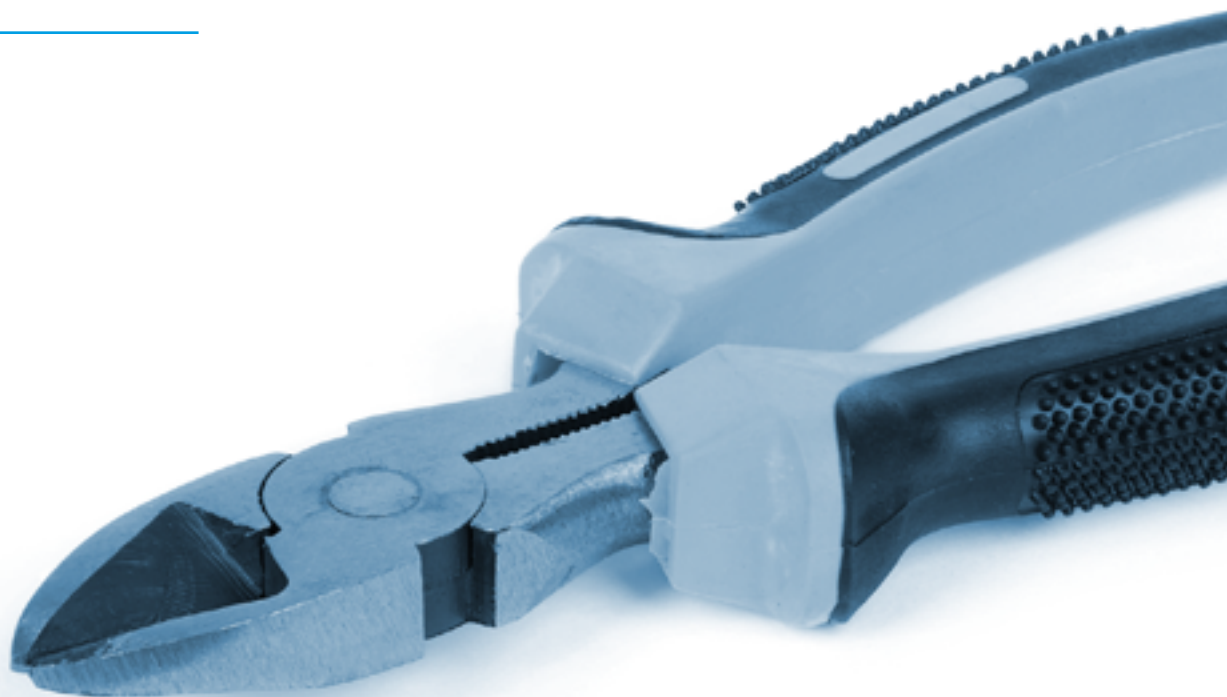
ergo.[®] 5039 gel

Perfectly adjusted flow properties.

Suitable for vertical surfaces and non-drip overhead applications.

Thixotropic properties prevent runoff.

No stringing.



Adhesives for plastics: Task completed in a matter of seconds

There are very few common plastics that cannot be securely bonded. ergo.® instant adhesives can join the same type of plastic as well as combinations of different plastics. They provide absolutely reliable solutions, even for applications together with wood, leather and suchlike.

Product range Polymer adhesives

ergo.® 5400 very fast curing

Suitable for use on almost every type of plastic used today.

Bonds different types of materials.

Excellent resistance to climatic influences.

NSF ANSI 61 certified, NSF P1 listed.

ergo.® 5950 extremely low viscous grade

For the smallest gaps and microdosing.

Capillary flow properties allow subsequent dosing.

Excellent wetting properties.

Good resistance to moisture.

ergo.® 5713 medium to high viscosity

Bonds materials with different thermal expansion coefficients.

Also suitable for combining plastics with porous materials such as leather, wood, cork and suchlike.

Adhesives for elastomers: Flexible assistants

ergo.® instant adhesives ensure perfect and reliable elastomeric bonds. These products demonstrate excellent resistance to adverse weather conditions and are ideally suited for use in fully automated dosing systems.

Product range Elastomeric adhesives

ergo.® 5300 very fast cure

Special product used to bond elastomers of almost any quality (NBR, SBR, and EPDM).

Also for rubber and foam rubber.

Excellent resistance to moisture and changes in climate.

NSF ANSI 61 certified, NSF P1 listed.

ergo.® 5925 low viscosity

Fast cure, for almost all standard applications on plastics, elastomers and metals.

Tested and widely used in window construction.

Metal adhesives: No problem when it gets tough

Metal-to-metal and plastic-to-metal bonds often have to withstand thermal or humid conditions due to the field of application.

Kisling offers a range of proven ergo.[®] instant adhesives for every type of metal, all which have demonstrated their reliability over many years, even under challenging conditions.

Product range Metal adhesives

ergo.[®] 5200 extremely low viscous grade

Special product based on methyl cyanoacrylate.

Well suited for bonding metals with very smooth surfaces and for very small gaps (< 0.05 mm).

Cures very quickly, reaches very high strength.

Capillary flow properties mean it can be applied to the gaps on pre-assembled parts.

Suitable for retroactive securing of locking screws and bonding U and E ferrite cores.

Tip: Particularly recommended, in conjunction with the ergo.[®] 5100 Activator spray, for bonding mesh (plastic or metal) to metal frames.

ergo.[®] 5210 medium viscosity

Modified instant adhesive with superior impact resistance.

Good resistance to peel forces and changes in temperature.

Maximum strength on metals, ferrites and ceramic materials.

Resistant to temperatures up to +105 °C.

ergo.[®] 5634 impact resistant

Suitable for metal-to-metal and plastic-to-metal bonds that are subject to high stress.

Superior impact and vibration resistance.

Slow setting time allows precise adjustment of parts.

Good resistance to moisture and changes in climate.

Resistant to temperatures up to +120 °C.



Special applications: There's one for every occasion

Whether it's a porous material, adhesive as a filler, pinpoint dosing or resistance to high temperatures, our wide range of ergo.[®] instant adhesives always has an all-rounder to meet all your needs – any time.

Product range Special applications

ergo.[®] 5370 universal, two-component

Instant adhesive and filler.
Excellent adhesion to a wide range of materials and surfaces.
Thixotropic gel-like consistency.
For vertical and overhead applications.
Even fills large gaps and holes.
Very hard when cured.
Can be worked by drilling, sanding and painting.
Practical twin chamber cartridge, very suitable for quick repair jobs.

ergo.[®] 5861 low to medium viscosity

Impervious to difficult surfaces (slightly acidic, porous or plant based).
Its curing properties allow fast bonding of porous materials such as paper, wood, leather, cork, textiles and foam rubber among others.
NSF ANSI 61 certified, NSF P1 listed.

ergo.[®] 5880 for very challenging tasks

Black, flexible slow-cure special product.
Can simultaneously withstand moisture, heat and dynamic loads.
Good resistance to impact and peeling force.
Very suitable with different thermal expansion coefficients.
Black color is an advantage for bonding black cosmetic packaging and for use in loud-speaker applications.
Resistant to temperatures up to +120°C.

ergo.[®] 5889 for very hard plastics

Special product.
In combination with ergo.[®] 5150 Primer also for difficult-to-bond materials, e.g. POM, PE, PP, PTFE and silicone.

ergo.[®] 5901 very low viscous grade

Low odor, non-blooming effect.
For pinpoint dosing.
Particularly suitable for applying small quantities of adhesive without leaving visible traces.
Adhesive does not evaporate at room temperature, no disturbing odor, no film (blooming).

ergo.[®] 5922 high viscosity alternative to ergo.[®] 5901

Relatively slow curing time allows adjustment of complicated parts.

ergo.[®] 5923 high viscosity

Low odor, non-blooming effect.
May also be used on porous surfaces.
Relatively slow curing time allows adjustment of complicated parts.
The adhesive of choice for manual workstations in the watch and jewelry industry.



ergo.[®] 5901, ergo.[®] 5922 and ergo.[®] 5923 are classified as non-irritants according to current regulations

ergo.[®] instant adhesives

	Type	Color	Ester type	Viscosity ¹ [mPas]	Tensile shear strength ² [N/mm ²]	Service temp. range [°C]	Setting time ³ [s] on Alu	Setting time ³ [s] on SBR	Setting time ³ [s] on EPDM	Approvals, registrations	Special properties	Container size [g]
ergo. [®] 5011	universal	colorless	ethyl	80	—	-30 to +80	50	3	10	NSF ANSI 61, P1	Universal, fast-curing standard grade, suitable for most general purpose applications.	20/30/50/500
ergo. [®] 5012	universal	colorless	ethyl	80	—	-30 to +80	70	5	15		Universal, fast-curing standard grade for household, repairs, model assembly, etc.	5
ergo. [®] 5705	universal	colorless	ethyl	500	—	-30 to +80	60	5	10		Medium viscosity fast curing product for rough and slightly porous surfaces.	20/50/500
ergo. [®] 5014	universal	colorless	ethyl	2000	—	-30 to +80	60	8	10		High viscosity adhesive for very uneven and porous surfaces, e.g. wood.	20/30/50/500
ergo. [®] 5039	universal, gel	colorless	ethyl	gel	—	-30 to +80	100	15	20		Gel-based adhesive for vertical or overhead applications.	3/20
ergo. [®] 5300	elastomer	colorless	ethyl	20	—	-30 to +80	25	2	2	NSF ANSI 61, P1	Fastest cure on all standard grades of rubber. Also suitable for foam rubber.	20/30/50/500
ergo. [®] 5925	elastomer	colorless	ethyl	30	—	-30 to +80	70	2	2	NSF ANSI 61, P1	Fast-curing, low-viscous product, well suited for fastening mitered joints in window construction.	20/30/50/500
ergo. [®] 5973	elastomer	colorless	ethyl	200	—	-30 to +80	40	6	10		Similar to ergo. [®] 5925, but slightly higher viscosity and flows away more slowly.	20/50/500
ergo. [®] 5950	plastic	colorless	ethyl	<10	—	-30 to +80	30	2	5		Extremely low viscous product with capillary flow properties for very small gaps and microdosing.	20/50/500
ergo. [®] 5400	plastic	colorless	ethyl	25	—	-30 to +80	30	2	2	NSF ANSI 61, P1	Very fast-cure adhesive for a wide variety of plastics, used for bonding joints of the same plastic or different plastic types.	20/30/50/500
ergo. [®] 5713	plastic	colorless	ethyl	1000	—	-30 to +80	60	6	10		Viscous product for bonding plastics to each other or to other materials.	20/30/50/500
ergo. [®] 5861	porous	colorless	ethyl	80	—	-55 to +85	30	3	10	NSF ANSI 61, P1	Suitable for bonding porous materials, e.g. paper, cardboard, wood leather, textiles and foam rubber.	20/50/500
ergo. [®] 5880	flexible	black	ethyl	400	>20	-55 to +120	30	10	15		Special product for bonding materials with different thermal expansion coefficients (e.g. metal-to-plastic).	20/50/500
ergo. [®] 5889	special	colorless	ethyl	400	—	-55 to +105	30	10	15		Medium viscosity, slow-cure adhesive with improved impact resistance. Small adjustments can be made prior to hardening.	20/50/500
ergo. [®] 5200	metal	colorless, slightly cloudy	methyl	<10	>18	-50 to +80	30	—	—		Very fast-cure, low viscous adhesive. Especially recommended for metals with a very smooth surface and very small gaps.	20/50/500
ergo. [®] 5210	metal	colorless	ethyl	400	>15	-55 to +105	35	—	—		Medium viscosity product, well suited for pure metal-to-metal bonding.	20/50/503
ergo. [®] 5634	metal	colorless	ethyl	2500	>20	-30 to +120	30	—	—		High viscosity product used for metal bonds with improved impact resistance.	20/50/500
ergo. [®] 5901	low odor	colorless	alkoxy-ethyl	<10	—	-30 to +100	90	7	15		Very low viscosity, almost odorless product for pinpoint dosing. Very suitable for bonds where appearance is important. Classified as non-irritant.	20/50/500
ergo. [®] 5922	low odor	colorless	alkoxy-ethyl	50	—	-30 to +100	100	8	15		Slower flow characteristics than ergo. [®] 5901. Well suited for bonding plastics in the cosmetics packaging industry. Classified as non-irritant.	20/50/500
ergo. [®] 5923	low odor	colorless	alkoxy-ethyl	900	—	-30 to +100	100	9	15		Viscous, almost odorless product, used in situations where emissions are a problem. Classified as non-irritant.	20/50/500
ergo. [®] 5370	low odor	colorless	ethyl	gel	>18	-55 to +80	10	—	—		Two-component instant adhesive that also cures through when applied in thick layers. Very hard; can be worked by drilling, sanding and painting.	10

■ products without hazard pictograms in accordance with (EG) No. 1272/2008, paragraph 2.2

1 viscosity measurement using a Brookfield RVT

2 measured according to DIN EN 1465 on steel, sandblasted

3 setting times as per factory standard

Detailed technical information: By professionals for professionals

Curing mechanism

One-component ergo.[®] instant adhesives essentially cure via the surface moisture on the bonded substrates. Surfaces that are too dry or acidic will delay or prevent curing. Higher moisture levels or alkaline surfaces, on the other hand, speed up the process.

To ensure a reproducible curing rate and strength, ambient conditions should be kept constant. Optimum conditions are a relative humidity between 40% and 75% at 25°C.

Since the small exposed surface area determines the curing process, we recommend applying the smallest possible and reproducible (i.e. repeatable) amount of adhesive. Make sure the gap between the parts is as small as possible and surfaces are as smooth as possible.

Avoid gaps that are larger than 0.2 mm. If this is not possible or other environmental conditions delay curing, use ergo.[®] 5100 Activator to facilitate the process.

Curing and vapor pressure

Like any liquid, instant adhesives have a vapor pressure. It explains why traces of cyanoacrylates evaporate into the atmosphere already at room temperature.

Monomer vapor is extremely reactive because the stabilizers do not evaporate with it but remain present in the product. The vapor falls back down on the parts, hardens and forms a white haze (blooming or whitening) around the bond line. Minimize this effect by applying the smallest amount of adhesive and ensuring sufficient humidity and ventilation of the workplace.

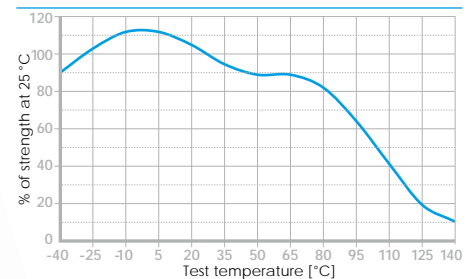
Temperature resistance

Cyanoacrylate polymers display pure thermoplastic behavior. When they reach a certain temperature, a reversible softening process begins and results in a measurable loss of strength.

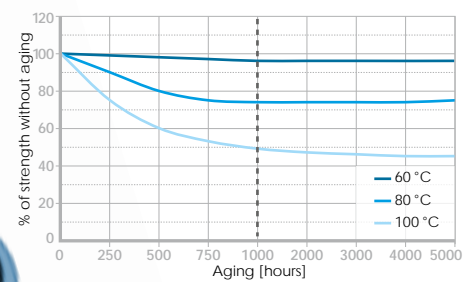
This limits the operating temperature of this adhesive from -30°C up to about +80°C.

Special products also cover temperatures between -55°C and +120°C. At temperatures above 165°C, the adhesive will start to decompose, causing irreversible damage to the bonded joint.

Tensile shear strength of ergo.[®] ethyl cyanoacrylate adhesives on sandblasted steel stripes according to DIN 1465 after one hour at test temperature



Long-term temperature resistance of ergo.[®] ethyl cyanoacrylate adhesives on sandblasted AlCuMg2 stripes according to DIN 1465 aged as shown, measured at 25 °C



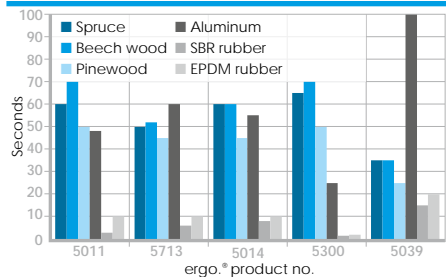
Strength

The cure time and the final bond strength with instant adhesives are determined by two key factors: the character of the structural elements (material, gap, geometry, etc.) and relative air humidity. A relative humidity below 30% will delay the process.

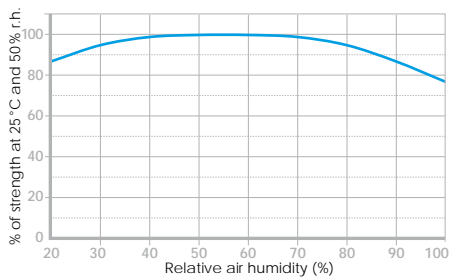
Shock polymerization (curing) can occur when relative humidity exceeds 80%.

This causes tensions in the adhesive layer resulting in reduced strength and poor aging resistance.

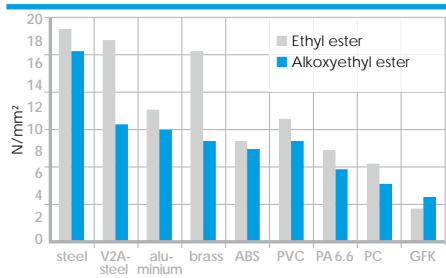
Handling strength of ergo.[®] instant adhesives on different materials (factory standard)



Tensile shear strength (DIN EN 1465) of ergo.[®] ethyl cyanoacrylates depending on the ambient air humidity at the time the adhesive is applied



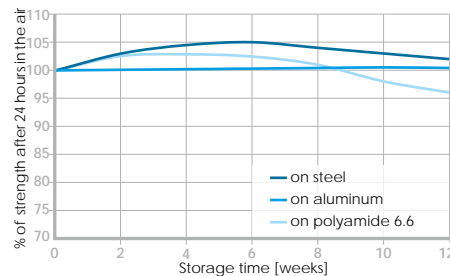
Tensile shear strength (DIN EN 1465) of ergo.[®] cyanoacrylates on sandblasted materials



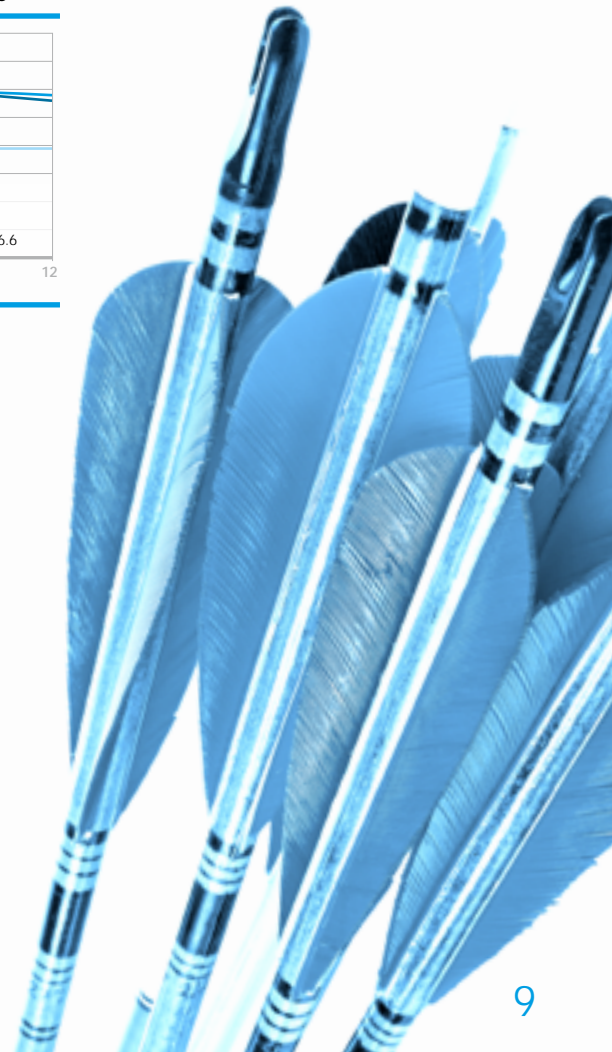
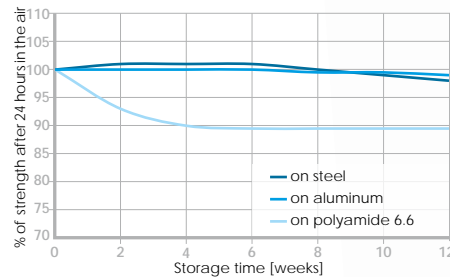
Resistance to media

ergo.[®] instant adhesives are very resistant to water, humidity and many organic solvents, but not to acetonitrile, ketones (e. g. acetone and MEK), esters, nitromethane, chloroform and stronger alkali.

Tensile shear strength (DIN EN 1465) of ergo.[®] ethyl cyanoacrylates stored in ethanol



Tensile shear strength (DIN EN 1465) of ergo.[®] ethyl cyanoacrylates stored in toluene



Auxiliary products: For every situation

ergo.[®] instant adhesives can bond almost any material with ease. Yet sometimes it pays to use an auxiliary product because the results are so good. Some influencing factors can undermine a good bonding: dirty surfaces, inactive or acidic surfaces, non-polar parts (PA 12, PE, PETP, PI, POM, PP, PTFE, PVDF and TPE), very low humidity, etc.

Often what is needed is removing hardened cyanoacrylate adhesive – on bench and equipment surfaces, and for cleaning valves and hoses in automatic dosing systems. Kisling also has a solution for this.

Product range Auxiliary products

ergo.[®] 5150 Primer

For substrates with low surface energy.

Used to treat PA 12, PE, PETP, PI, POM, PP, PTFE, PVDF, TPE, etc.

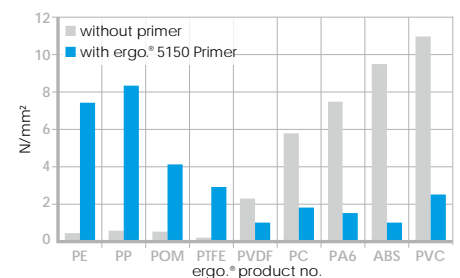
Optimizes adhesion, makes surface adhesive.

Apply to parts with a brush or sponge, by dipping or by spraying.

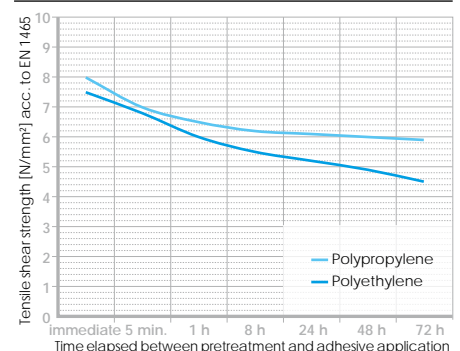
Simple cost-effective alternative to flame, corona and plasma pretreatments.

Tip: Plastics with good adhesion properties, such as ABS, PC, PVC, PMMA, PA 6.6 and others, should not be primed.

ergo.[®] 5889 on different plastics
Tensile shear strength according to DIN EN 1465



Duration of pretreatment with ergo.[®] 5150 Primer using ergo.[®] 5889 adhesive



ergo.[®] 5100 Activator

Facilitates curing process under unfavorable conditions.

Promotes, accelerates or ensures adhesive achieves full cure.

Typical applications: inactive surfaces, very large gaps, extreme porosity or large open surfaces, e.g. bonding mesh to screen frames.

May be sprayed onto the entire surface before bonding or after having applied the adhesive.





ergo.® twist-open dispensing cap: Bonds without the sticky mess

Exclusive to Kisling: the patented ergo.® twist-open dispensing cap. It ensures an absolutely accurate and neat bonding application till the very last drop. With no spills and no clogging of the nozzle, you'll save time, money and hassles.

ergo.® SmartPen:
For an effortless
and accurate
bonding experience

Tip: Use a paper towel moistened with acetone, butanone or ethyl acetate to remove liquid residues.

ergo.® 5000 Mineral Filler

Fine silicon dioxide powder.

Use in conjunction with ergo.® instant adhesives.

Fills and closes gaps, cracks and holes in seconds.

Levels out surface irregularities.

Once fully cured, it can be mechanically abraded and painted over.

ergo.® 9190 Metal Cleaner

ergo.® 9195 Plastics Cleaner

Removes any residues of mould release agents, grease, oils, finger prints and dust.

Assures best, reproducible strength.

Cleaner quickly evaporates, without further delaying the application process.

Parts may be dipped or wiped with a cloth soaked in the cleaner.

Tip: The cleaner can be used to treat most plastics. If in doubt, conduct a patch test for compatibility.

ergo.® 9153 Adhesive Remover

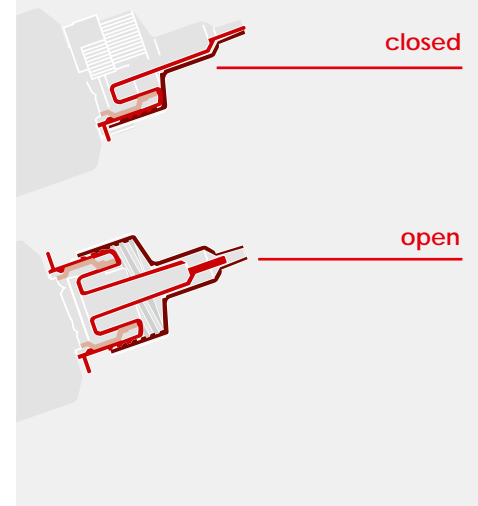
Dissolves hardened material.

User-friendly, non-flammable solvent.

Very high boiling point, evaporates slowly, prolonging the effect.

Swells the hardened adhesive so that it can be removed by light mechanical abrasion.

Tip: Use a paper towel moistened with acetone, butanone or ethyl acetate to effortlessly remove liquid adhesive residues.



For the full range of
Kisling products, please visit:
[www.kisling.com/ch-en/
flyers-brochures](http://www.kisling.com/ch-en/flyers-brochures)



NSF Category P1 For use as a sealant in food processing areas where there is no risk of unintended contact with food or just a risk of accidental contact.

Note: This is a regional approval. If you require further clarification and information, please contact your local Technical Service Centre.

Certified by NSF in accordance with ANSI Standard 61 For use in residential potable water systems and in the commercial sector not exceeding 82 °C.

Note: This is a regional approval. If you require further clarification and information, please contact your local Technical Service Centre.



Kisling AG and Kisling Deutschland GmbH have **SQS ISO 9001 Certification**.

You will find information on applications, technical information, all certificates and individual approvals at:
www.kisling.ch/en/download-center

If you require specific information, please contact our Customer Service Center:
+41 58 272 02 72 or customerservice@kisling.com

Our current business terms and conditions apply. Always refer to the latest (most recently issued) relevant local product data sheet and material safety data sheet prior to using the product and processing.

Kisling. Secure connections any time.

Kisling AG, Wetzikon, founded in 1862, is one of the world's leading manufacturers of adhesives and sealants. Covering the entire process from development and manufacture through to support, Kisling offers everything under one roof. As an experienced developer, producer and solutions provider of adhesives and sealants, we are happy to advise and assist you with your individual projects – from complex challenges to tasks that require a quick solution. This approach produces a steady stream of new and innovative products that provide exactly what you want.

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