Technical Data Sheet

UHU CA 103

UHU CA 103 is a clear single component reaction adhesive based on cyanoacrylate which in seconds to minutes enables extra strong bonds on numerous materials.

Specification:

Appearance:	colourless, clear
Consistency:	low viscosity
Viscosity [dPa·s]:	approx. 0.50
Density [g/cm³]:	1.07
Base:	cyano acrylic-acid ethyl ester
Flash point [°C]:	+ 80
Danger class [VbF]:	A III
Danger symbol:	Xi irritant
Danger and Preparations Directives:	Compulsory marking

WARNING: Cyanoacrylate! Danger! Sticks skin and eyelids together within seconds. Keep out of reach of children. Irritating to eyes, respiratory system and skin. Do not breathe vapour. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advise.

Properties:

After application when the surfaces to be joined are pressed together, the adhesive bond polymerises in seconds (up to approx. 1 minute) to form a synthetic resin and therefore joins both surfaces very strongly.

The hardening in seconds means that it is primarily used on areas with a small surface. The thinner the adhesive layer the quicker the adhesive dries. This also means that for absorbent materials longer hardening times (minutes rather than seconds) are required.

UHU CA 103 is especially suitable for solid materials with a smooth surface, e.g. for many plastics such as rigid PVC (polyvinyl chloride), ABS (acrylonitrile-butadiene-styrene, shock resistant polysterene), PS (polysterene), acrylic resin (Plexiglas®), polycarbonate (Makrolon®), phenolic resins (Bakelite®), as well as steel, iron, light and heavy metals. UHU super glue also attains very fast bonding strength on porcelain, ceramics, rubber and wood.

Gluing with UHU CA 103 results in a hard and high bonding strength. Therefore, it is less suitable for soft, porous and elastic materials (e.g. leather clothing).

Moderately porous materials such as wood and wooden materials can also be glued quite well if you take longer hardening times into account (minimum 1 1/2 to 2 minutes). The adhesive is absorbed by very porous materials and is therefore not suitable for this purpose. UHU CA 103 is only partly suitable for use on glass, as over a period of time the bond becomes brittle, causing it to weaken.

UHU CA 103 is not suitable for use on materials such as polyethylene (PE), polypropylene (PP), silicone resins and rubbers (Si) and polyfluoroethylene (PTFE, Teflon®). It is also not suitable for use on expanded polysterene (Styropor®).

UHU CA 103 is colourless and clear. It therefore produces an almost invisible bond. Its gap filling capacity is limited; otherwise the bonding time is excessively long. The more closely and tightly the parts to be assembled are held together, the better and faster the bonding.
The completely hardened adhesive is resistant to temperatures of up to approx. 80 °C. It is not affected by low temperatures.

Adhesive joints are water resistant for a short time. If stuck assemblies are left in water permanently, leaks and corrosion may occur, as well as loss of bonding strength.

Directions for use:
Perfect adhesive bonding requires clean, dry surfaces. Any dust, oil, grease, wax or separating agent should therefore be thoroughly removed from the surfaces to be stuck together. The best way to achieve this is to rub the parts a number of times with appropriate solvents, such as acetone (if this is suitable for the material – check first!).

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For metals and metal alloys it is usually sufficient to roughen the surface using emery paper or by grinding or brushing.

UHU CA 103 is applied straight from the bottle onto one of the two surfaces to be stuck together. The other part is immediately placed on it and they are pressed together. After use, any excess adhesive smeared on the pipette tip should be wiped off using a paper cloth.
Depending on the properties of the material and the quantity of adhesive applied, the assembly is firm to the touch after between a few seconds and a few minutes. The final bond is achieved after approx. 12 hours.
On suitable materials, assemblies can be unstuck at temperatures of 180°C or by prolonged exposure to water or acetone (check for suitability).

Special tip for use:

As this adhesive needs moisture for hardening, the process can be speeded up by breathing on one of the parts of the assembly. The hardening process may take longer, if humidity is low.

Cleaning:

Excess or smeared adhesive should be removed as quickly as possible by rubbing with acetone on a lint-free cloth (if this is suitable for the material).
Fresh specks of adhesive can also be removed from fabrics using acetone (check for suitability first).

Protective measures:

Cyanoacrylate adhesives harden extremely quickly in the presence of moisture (such as air humidity, moisture in the skin, perspiration, skin sebum, tears, etc.). Care must therefore be taken during use, particularly as regards children and contact with the skin and eyes. Even without treatment, cyanoacrylate adhesives dissolve naturally with time.

If the skin becomes stuck, soak for as long as possible in warm soapy water and prise apart carefully without using force; moisturise the skin afterwards.
A further possibility is to rub the fingers in warm water and push a paperclip or piece of wire between them. After some time the fingers can be separated. The affected areas may also be treated immediately with acetone or nail polish remover. As organic solvents also remove grease, we recommend applying hand cream afterwards. Should any specks of adhesive remain, these can be rubbed away using a pumice stone. In the event of the product being sprayed into the eyes or mouth, the eyes or mouth must be kept open and rinsed with plenty of water. If necessary, seek medical advice.

Because of the particular fumes developed by cyanoacrylate adhesives, it is advisable to ventilate the premises well when using relatively large quantities.

Storage:

Like all cyanoacrylate-based instant adhesives, UHU CA 103 cannot be kept indefinitely. After use, the bottle should be closed and kept as cool as possible, e.g. in a refrigerator.

Package sizes: Bottle 20g, 50g, 500g

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Note:

This information is the result of carefully executed tests. This Technical Data Sheet has been prepared to the best of our knowledge to provide you with advice when gluing. We cannot be held responsible for the results or any damage suffered, as the variety of factors involved (type and combination of materials and working method) are beyond our control. Users have to carry out their own checks and trials. Liability can only be accepted for the consistently high quality of our product.

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