Weicon Contact Gel Super Glue is a thick, pasty type of high strength cyanoacrylate adhesive. This grade is perfect for extremely accurate application of the bonding of porous materials like leather, felt or fabrics. It has a slightly extended initial adhesion time which allows for some repositioning of the parts after you've applied the glue.

Contact Gel Super Glue is clear in colours and withstands temperatures up to 80°C. It can be used with a wide range of materials including metals, rubber (except EPDM), wood, glass, leather, fabrics and most types of plastics.

Applications

- Model making
- Bonding leather
- Bonding rubberised or plasticised sponge or foam
- Bonding cork or porous sealing materials
- Gluing cloths and woven materials
- Fixing cables and leads in electronics (it has high dielectric strength)
- Gluing balsa wood
- Bonding objects to vertical surfaces
- Gluing objects that require high precision placement

Technical Details

General Surface Compatibility

Metal	+
Plastic*	+
Rubber	+
EPDM Elastomers	-
Wood	+
Balsa-Wood	++
Glass / Ceramic	++
Leather	++

++ = Highly Compatible + = Compatible - = Not Compatible
*Performance will vary depending on the exact type of plastic being bonded. Generally, low surface energy plastics will be much harder to bond to then high surface energy (such as rigid PVC).

Properties

Ester Type		Ethyl
Condition / Nature		Colourless, Clear Liquid
Viscosity at 20ºC Brookfield		60,000-90,000 MPa
Maximum Gap Covering Power**		0.2mm
Specific Gravity at 20ºC		1.08 g/cm³
Flash Point According To Abel-Pensky DIN 55213		87ºC
Initial Adhesion on Aluminium*		90-120 Seconds
Initial Adhesion on Nora Test Rubber*		20-30 Seconds
Initial Adhesion on Rigid PVC*		40-80 Seconds
Final Strength After		24 Hours
Shear Strength Acc. To DIN 53283	Sand-Blasted Steel	21 N/mm²
	Sand-Blasted Aluminium	15 N/mm²
	Rigid PVC	13 N/mm²
	ABS	12 N/mm²
	PC	12 N/mm²
	NBR	>8 N/mm² (bonding exceeds strength of substrate)
Temperature Resistance		-50ºC to +80ºC
Short-Term Temperature Resistance		+100ºC
Squatting Temperature		+150ºC
Refractive Index		1.49 n^{D20} (Similar to Glass)
Linear Thermal Expansion Coefficient ISO 11359 / ASTM D 696 (K^{-1})		80 x 10^{-6}
Specific Forward Resistance DIN 53482* / ASTM D 257		>10^{15} Ω mm
Dielectric Strength DIN 53481* / ASTM D 149		25 kV/mm
Thermal Conductivity ISO 8894-2 / ASTM C 177		0.1 W/m·K

Solubility

Dimethyl Formamide, Dimethyl Sulfoxide, Acetonitrile, Alkali.
Swelling is possible after long-term storage in ethyl acetate, acetone and methylene chloride.

*Achieved in normal climate (DIN 50014) +23ºC and 50% relative humidity. Within the given time period, handling strength can be reached.
**These details are dependent on the type of material to be bonded and its properties.

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Preparation of the Surface
To achieve the best possible results, the surfaces being bonded must be clean and dry. Smooth surfaces should be roughened whenever possible (e.g. by sanding) as this increases the available surface area for the adhesive to bond with.

Application
Apply Weicon Contact Gel Super Glue to one of the surfaces being joined. The bond line (or gap between the parts being bonded) should be between 0.05mm and 0.2mm. Outside of this, complete curing may not be achieved.

If bonding larger surface areas, Weicon Super Glues should be applied drop by drop to minimise the risk of inner tension of the adhesive. All of these glues are very economical as a single drop is sufficient for covering about 3-5cm² of surface area.

Weicon Contact Gel should be used in an environment with 40-80% relative humidity if at all possible. In conditions below 40%, the cure will be substantially slowed or even inhibited. With a relative humidity greater than 80%, of when bonding basic substrates such as glass, shock-curing can occur. In such situations, some materials exhibit a drop in bond strength of approximately 10-15% due to inner tensions created in the bonding line.

Basic reacting surfaces (with pH values >7) will cure faster while acidic reacting surfaces will slow, and under certain conditions, completely inhibit polymerisation.

Physiological properties / health and safety

Physiologically, all Weicon Cyanoacrylate Adhesives may be considered essentially harmless. However, it is prudent to ensure that there is sufficient ventilation of work areas to cope with vapours released by the adhesive. Vapours released from contact adhesives may cause irritation to mucus membranes and the eyes. Avoid contact with skin and eyes (wear gloves and protective goggles). The use of Weicon Hand Protective Foam will also assist with preventing skin irritation and hand cleaning problems. For more information on this topic, please refer to the appropriate SDS.

Storage

Weicon Contact Gel Super Glue should always be stored in a cool, dry and dark area. The shelf life is at least 9 months if stored at room temperature. If stored at 5ºC (in a refrigerator) the shelf life can be extended to over 12 months.

Availability
Weicon Contact Gel Super Glue is available from Swift Supplies in 20gm Tubes and 30gm Pens.

These pens are a unique feature of our Weicon Adhesive range that allows for natural, accurate and easy application of the adhesive.

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