

# **GorillaPro™ Instant Adhesives Frequently Asked Questions**

# How do instant adhesives work?

When the instant adhesive is placed between two solid substrates and pressed together, the adhesive creates a thin film exposing it across the surface of the bonding substrates. The instant adhesive becomes exposed to the moisture content on the surface and inside the penetrating area of the substrate. The absorption of the moisture creates instability in the adhesive by neutralizing the stability acids, which in turn, causes the liquid acrylic monomer to form a solid acrylic polymer plastic.

# Why do super glues set up slower in winter than in warmer seasons?

In colder months, the air and the surface of the parts are normally drier, so the speed of cure is slower. The amount of moisture (humidity) in the air is in direct relationship to temperature, therefore; the potential for moisture to be contained in the substrates decreases as the temperature decreases. Moisture concentration is a significant factor in cure speed.

### What surfaces can be bonded with instant adhesives?

GorillaPro instant adhesives will bond most plastics, rubbers, metals, wood, fabrics and leather and the majority of commonly used substrates.

# What surfaces do not bond with instant adhesives?

Instant adhesives do not bond 'hard-to-bond' plastic like Polyethylene, Polypropylene and Teflon unless treated or etched. Silicone, Santoprene and even Viton rubber (unless primed) cannot be bonded with instant adhesives. They are also not recommended for bonding glass.

# When should I use an activator?

If the parts you are bonding are very porous, very dry, or you want to cure the excess adhesive outside of the joint, you can use an instant adhesive activator. The accelerator provides a chemical neutralization of the stability additives regardless of moisture content/pH.

### When should I use a gel instant adhesive?

When you have a large gap to fill, or large parts where the space between them varies, you can use a gel adhesive. In addition, when bonding vertical or overhead parts a gel formula can prevent the adhesive from running or dripping into the area, causing an aesthetic or mechanical issue. Moreover, gel instant adhesives have a slower cure schedule which can assist in bonding parts that require longer open time and/or ability to potentially reposition.

### Is it better to use more or less of an instant adhesive?

In the case of instant adhesives, less is best. You can achieve an extremely strong and rapid bond with only a small amount. Too much adhesive can slow down the reaction time (cure schedule), waste product, and potentially lead to weaker bonding strengths.



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# What is the shelf life of instant adhesives?

GorillaPro instant adhesives have a shelf life of 12 months.

# How do you keep the tips from clogging?

Too much contact between the tip of the bottle's nozzle and the parts you are bonding will start to harden the glue in the nozzle. In addition, leaving the cap off and exposing the adhesive to humidity will contribute to hardening of the adhesive left in the tip. GorillaPro instant adhesives have a pin cap that can penetrate the hardened glue at the top of the tip and free up the dispensing of the adhesive for the next use.

### What is viscosity in cps?

Centipoise (cps) is the measurement for viscosity. Water is 0-2 cps, SAE 30 motor oil is 150-200 cps, honey is 2,000 -3,000 and caulk or silicone is 1,000,000 plus cps. Therefore, the GorillaPro relationship to common materials would be:

CA100/CA120SI	100cps	Cream/Orange juice concentrate/SAE10 motor oil
CA30	30cps	Cod oil/Condensed milk/Castor oil
CA500RT	500cps	Apple sauce/Melted wax/Printer ink
CA Gel	60,000cps	Toothpaste/Processed cheese

# What will remove instant adhesives?

There are industrial solvents or removers available to assist in instant adhesive removal. Some common industrial solvents include Acetone and MEK. There are times scraping or sanding may be necessary, depending on how much product you are trying to remove.

# What should I do if I stick my fingers together?

You should place them in warm soapy water and slowly let them separate. A film of cured super glue on your skin will slowly be lifted off by the skin's oil as it migrates to the surface. Do not try to pull them apart, rather continue to move them gently in a back and forth manner in the warm soapy water until release. If you have a major spill seek immediate medical attention and consult the Safety Data Sheet for the product you used.

### Are all instant adhesives brittle?

No, GorillaPro CA500RT is a black rubber toughened super glue that resists impact, cracking and thermal expansion and contraction. It also has a higher operating temperature up to 250 F for higher heat applications. Unlike the other instant adhesive in the GorillaPro family, the CA500RT has elastomers added to the product to assist in the balance of cohesive fatigue. Please remember, these types of adhesives, known as cyanoacrylates, have the ability to take on many properties of the substrates. So, in many cases, "brittleness" is related to the substrates being bonded.



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