

TimberBond VFG (vertical flow gel) instructions

Directions:

- 1.) Slowly precondition material to at least 70° in cold weather, for easier gunning. Also see additional warming instructions on page 2.
- 2.) Read and understand all literature and safety warnings. SDS is on-line at https://www.graservices.com/timberbond
- 3.) Remove caps and install static mixer with retaining nut.
- **4.)** Extrude material until uniform color is achieved with no streaking. Dispense under constant pressure. If dispensing is altered, establish uniform color prior to continuing.

CAUTION:

Product is strong sensitizer. Use of safety goggles and chemical resistant gloves is recommended. Remove contaminated clothing. Avoid breathing vapors. Use adequate ventilation. Use of NIOSH/MSHA organic vapor respirator recommended.

WARNNG:

Harmful if swallowed! Causes eye and skin irritation. Use suitable eye protection. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

IN CASE OF CONTACT:

Wash thoroughly after handling with plenty of soap and water for at least 15 minutes. Wash clothing before reuse.

EYES:

Immediately flush eyes with plenty of water for at least 15 minutes. See a physician.

AMINES, LIQUID, CORROSIVE, n.o.s. (aminopropyidlethanolamine) UN2735

DO NOT REUSE CONTAINER.

FOR INDUSTRIAL USE ONLY! KEEP OUT OF REACH OF CHILDREN!

KEEP TIGHTLY CLOSED! NOT FOR INTERNAL CONSUMPTION!

CONSULT SDS (Safety Data Sheet) FOR MORE INFORMATION.

Non-Carcinogenic, low odor, no solvents or mercaptans

Storage Temperature: 40°F – 80°F

Shelf Life: 18 months (for best results turn case over every 4 to 6 months)

NOTE: This information is also shown on the label of each cartridge.



TimberBond VFG - vertical flow gel - WARMING

This is a very thin/runny epoxy product, which is an easy product to extrude from the cartridges. Keep the product stored between $40^{\circ}F - 80^{\circ}F$ and warm to at least $70^{\circ}F$ before use, for best results. See warming instructions in the NSG section below.

TimberBond NSG - non-sagging/non-leak gel - WARMING

During the warmer months of the year, the ambient temperature and the product temperature are elevated and equal and the flow of the epoxy out of the cartridge/nozzle is without issue.

During cooler/cold temperatures, an extended slow warming of the epoxy cartridges is the best antidote to using this very thick product. This will ensure the temperature of the product and the plastic cartridges are the same.

To warm: place the epoxy cartridges in a warm room, or an electric warming box. In a warm room it will sometimes take several days to get the product up to at least 70°F, which should be warm enough to easily extrude.

While on-site, you <u>cannot</u> just place the cartridges in a vehicle dash to allow the "windshield heat" to heat the cartridges, that will not sufficiently work, it will only help to hold the temperature. Using windshield heat will warm the plastic cartridges; however, since the material in the cartridge is thick, trying to bring up the product temperature inside the cartridge using this method is not effective. What happens is that the plastic walls of the cartridge heat up to a temperature higher than the product temperature inside the cartridge. The plastic gets a bit softer and tends to flex easier under pressure. Since there is a disparity of temperature between the cartridge plastic and the product, and the heat has raised the temperature of the product that is touching the inside of the plastic cartridge wall, you get a very thin layer of product that is hotter than the greater epoxy mass and the "thin-hotter" layer acts as a lubricant, allowing the piston in the end of the cartridge to "slide" into the mass of the product inside the cartridge when you apply significant pressure to the piston with the metal plungers of the tool.

From time to time, we have had an issue with the sides of the cartridge flexing while the gun is activated, and the mechanical plungers are pushing the pistons down the cartridge. When you get "blow by", normally this means the epoxy gel is resisting movement out of the nozzle; therefore, excessive pressure is building in the cartridge. Once the walls of the cartridge are over pressurized, they flex open, the black piston at the end of the cartridge is then allowed to push forward into the epoxy gel and the result is the epoxy bursts out past the piston. If this happens, you can damage the tool and the product is very difficult to clean up. Citrus Goop hand cleaner is about the only thing that works for cleaning.