

Using AT-2010 & AT- 4020 Acrylic Adhesive

AT-2010 and AT-4020 are two-part acrylic adhesives, which are specially formulated with high viscosity to allow instant bonding of Weld Mount System fasteners to any surface (horizontal, vertical or overhead). Both adhesives are packaged in a two part 50 ML cartridge which is mounted in the AT-300 adhesive dispensing gun using a 1 to 1 plunger. A special mixing tip is used to mix the two components thoroughly before use. AT-2010 sets in approximately 6 minutes, develops working strength in 15 – 20 minutes and dries to a light yellow color. AT- 4020 sets in 10 – 12 minutes and develops working strength in 30 – 40 minutes. It dries to a white color and is higher viscosity than AT-2010 making it better for mounting heavier parts. Please note the following before use:

1. **AT-2010 & AT-4020 Adhesives** have a shelf life of 1 year when refrigerated or 6 months when stored at 72°F. AT- 4020 has a shelf life of 1 year when stored at 72 degrees but refrigeration is recommended. Do not leave either adhesive in high temperature locations as this will severely reduce the shelf life. Expiration dates on the adhesive are 1 year from the date of manufacture.
2. When using a new tube of adhesive put the cartridge in the gun and remove the protective cap. As air voids may be present in either cartridge. It is advisable to discard the first bit of material which comes out of the cartridge to insure a proper 1 to 1 mixing ratio. Check to insure both cartridges are dispensing material uniformly. Next clean the end of the cartridge and install the proper mixing tip.
3. AT-2010 should be used with AT-400 mixing tip. AT-4020 should be used with AT-450 mixing tip. Using the incorrect tip could result in inadequate mixing and bond failure.
4. Put a 5/8" diameter dot of mixed adhesive on the back of the part to be bonded.
5. When using AT-2010 push the part into the substrate and slowly twist the part as it is mated to the substrate to evenly distribute the adhesive. Continue until you see adhesive around the entire base of the part. Hold the part for approximately 2 seconds and release. Hint: When using AT-2010 if you apply too much adhesive, heavier studs or standoffs may slide before the adhesive sets up. If this occurs remove the part and solvent wipe the adhesive from the part and substrate and repeat using less adhesive. After some practice you will quickly learn how much adhesive to apply.
6. Installation of parts with AT-4020 is identical however it has a much higher viscosity so there is much less danger of heavy parts sliding if too much adhesive is applied. AT-4020 does not adhere as well to metals as it does to composite substrates.
7. Both adhesives are temperature sensitive. For every 10 degrees drop in temperature below 72 degrees the set time doubles. 50 degrees is the lowest temperature limit. Below this temperature it will not set. The working strengths listed above are approximately 70% of the full bond strength. Full bond strength is achieved after 24 hours. The normal bond strength for these adhesive is 500 – 600 lbs. (Tensile). Shear strength is approximately 20% greater.
8. Both adhesives can be used on irregular surfaces as these adhesives are gap filling to ¼".
9. One 50 ML cartridge is sufficient for approximately 100 – 150 parts (continuous bonding).
10. If you stop dispensing adhesive the adhesive will set up in the mixing tube. Do not try to force the adhesive out of the nozzle as this may cause the cartridge to leak or you will strip the plunger on the gun. We recommend you purchase 5 mixing tips with each cartridge of adhesive.
11. AT-2010 will bond to most substrates except rubber and low energy plastics such as polypropylene and starboard. Excellent for bonding our parts to composites, aluminum, stainless steel, carbon steel and wood. **AT- 4020 is used primarily for bonding our parts to composites.**
12. While extensive surface preparation is not required excess dust can interfere with the bond strength of the adhesive. We recommend you solvent wipe the surface to remove excessive dust to achieve the best results. When bonding to metal it is advisable to remove oxides on the surface by using scotchbrite or grinding followed by a solvent wipe with alcohol or mold release solvent.
13. If the adhesive will not be used for several hours we recommend that you remove the mixing tip and carefully clean the tip of the cartridge by wiping downwards (the wall between cartridges should be vertical). Do not clean from side to side as this will cross contaminate the cartridge. Replace the cap. Before reuse check to make sure that both sides of the cartridge are flowing freely before installing tip.
14. Please note the warning information on the cartridge label.