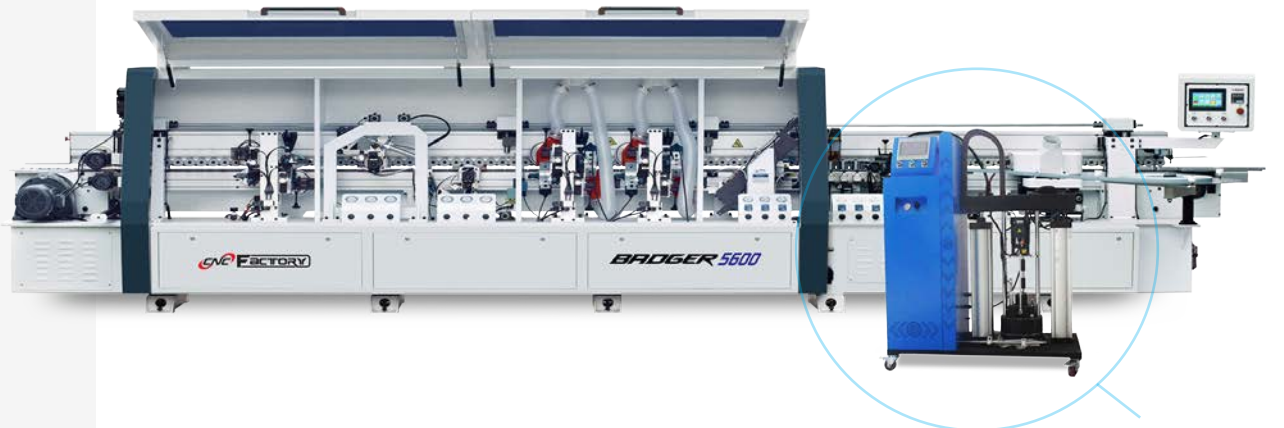




BADGER 5600

PUR ZERO GLUE LINE

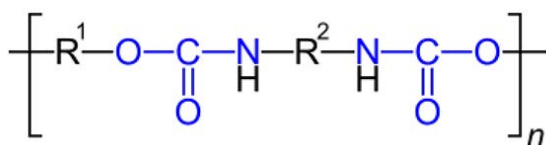
Answers to Frequently Asked Questions



The PUR station

1. What is PUR?

Polyurethane, or PUR, is a synthetic material made up of many organic units connected by urethane links. PUR used in adhesives is also known as *PUR reactive adhesive*, *reactive hot melt*, *reactive polyurethane* or *RPU adhesive*. PUR adhesives combine flexibility and the initial speed of a hot melt with the strength (greater than 1,000 lbs) of a structural adhesive. They are one-part formulations that require no mixing and rapidly reach handling strength with no need for clamping—bonding well to wood, glass, ceramics and many plastics.



It is classified as a polymer because it has a molecular structure made up of similar units in a repeating chain.



PUR hot melt refill in a canister

2. How does it work with edgebanding?

PUR is solid at room temperature and liquefies at high temperatures. Once it's heated and liquid, the Badger 5600 applies it thinly between the edgebanding and the substrate material, and is then trimmed, scraped, and buffed for a cleaner finish. The bond PUR forms occurs in two stages: (a) it reaches holding strength when the adhesive cools back down after a few seconds and solidifies, and (b) when it reaches structural strength as it cures over the next 24-48 hours.

When applied properly by the Badger 5600, it can create a seamless "invisible" joint or "zero glue line". PUR can also dry clear—making it easy to hide glue lines and give the appearance of continuity in a glued material.



A perfect edgebanding finish with PUR

3. Why is PUR better?

PUR is better than your typical Ethyl Vinyl Acetate (EVA) hot melt edgebanding glue because:

- **It creates a stronger and lasting bond with difficult substrates.** PUR hot melt draws moisture from the substrates and the atmosphere and cures to form a structural bond that is stronger than most other adhesives, including water-based adhesives as well as other hot melt adhesive formulations. It works well with different coatings & inks; materials different from each other; and hard-to-bond, non-porous substrates.
- **It is water and chemical-resistant.** It can bond with water-repellant substrates and is perfect for outdoor use or areas near sinks. Its continuous bond line prevents the migration of fluids, dust and dirt. It does not allow bacteria to grow in cracks and crevices and is optimal for hospitals and medical office applications.
- **It is solvent-free.** It has low to no volatile organic compound (VOC) content so it has no explosion or fire concerns, is more environmentally friendly, and is easier to transport.
- **It can be applied thinly.** You get more surface area coverage with PUR compared to EVA for the same amount of product. It can spread perfectly even and will not create imperfections on the surface, even on thin and high-gloss materials. And since only a thin layer is applied, the bond is more flexible... and can be hard set or rubbery once cured. Adhering to new materials and distributing stress along the entire bond area helps designers use thinner and lighter materials as well.
- **It does not re-melt or delaminate once cured.** This tolerance to a wide temperature range (from -20°F to 350°F) makes it suitable for indoor and outdoor use. Once set, it can be sanded or painted and it will not shrink or curl.
- **It is melted and applied at a much lower temperature.** This benefits edgebanding tapes that are temperature sensitive which can melt and distort at higher temperatures.
- **It's easy to use.** No mixing or measuring required and it does not need any catalyst or hardener during the curing process. There's also no drying time so you get a faster production rate.

4. What are the challenges with PUR?

PUR is applied using an open roller pot system and can be costly in terms of maintenance and cleaning. The cleanup process is longer— the pot must be drained and the adhesive allowed to cure overnight before the pot can be reheated and any remaining adhesive removed. The adhesive pot may require recoating as often as once every three years. The system also allows for greater amounts of glue spoilage.

5. Do substrates need any special preparation to use PUR?

No. Your substrate material can be instantly fed into the Badger Series.

6. Can I switch between using EVA & PUR adhesives on the Badger 5600?

Yes. The Badger 5600 has a melting pot you can use for EVA; the PUR glue line station is independent from the main edgebander. You can switch between EVA or PUR via the Badger 5600's touchscreen controls.