

CYPOX

BONDING SYSTEM

Instruction Sheet

The Cyvox Bonding System is a new technology; you may find the application of this product a little different from your past experiences. Because of this, a little practice and experimentation to see what works best for your application is always recommended.

Applications

The Cyvox Bonding System has the speed and efficiency of cyanoacrylate (super glue) with the strength and durability of two part epoxies. When applied as directed, the Cyvox Bonding System can be used for repair, manufacturing, prototyping, maintenance, restoration, fabrication. The Cyvox System may also be used with joining, filling or build-up applications and is especially effective where high shear or tensile strength is needed. The system is compatible with all materials except Low grade recycled plastics and some delicate foams. The compatible materials include metals, cast, white and pot metal, wood, particle board, paper, chipboard, cork, carton, masonry products, marble, ceramics, bisque, porcelain, glass, rubber, vinyl, PVC, ABS, polyolefin's, butyrate's, styrene's, laminates, lexan, linoleum, acrylics, polycarbonates, fiberglass, Kevlar, composites, synthetic leather, leather, and textiles. Materials can be bonded to themselves or each other. Cyvox Bonder can also be mixed with particulates (sawdust, baking soda, etc.) to form a paste.

Bonding Techniques

Cyvox Activators are generally* needed to activate Cyvox Gels & Bonders. **Cyvox Activators may adversely affect some plastics and other materials. Test first. Do not use Activator if material is adversely affected.* Mixing is unnecessary. Contact is the only requirement.

Following are the two most common methods of activation when Cyvox Activators are needed. Use the Option that is most efficient for your application. Option B allows you to hide the bond line when applied properly.

OPTION A: Apply enough Bonder or Gel to cover surface and fill gaps. One free falling drop generally covers one square inch of bond area. Carefully spread liquid while gently aligning surfaces. *Caution: too much pressure can create grab which contributes to misalignment.* Once aligned, press materials together firmly to initiate bonding process. This should create a slight bleed out along the bond line. Spray or brush the excess Bonder appearing at the bond line with a light application of Activator.

OPTION B: Brush, spray, or wipe Activator sparingly on one of the surfaces to be joined. Apply enough Bonder or Gel on opposing surface to cover and fill any gaps. Align pieces and firmly press together, holding for ten seconds.

Both options provide handling strength in one minute, significant strength in 30 minutes, and complete integration in 24 hours. High humidity and/or temperature can accelerate bonding process while gaps between surfaces & certain materials can slow it. Clean up with Debonder 401.

Plastic Preparation

Consult Plastic Primer product labels for specific instructions.

Polyethylene, polypropylene, nylon, Delrin®, ABS and Teflon® type plastics: Treat bond area(s) of these materials with Plastic Primer using the brush or spray applicator. Wait a minimum of 90 seconds or until dry. If wetness still appears after 90 seconds, use an absorbent cloth to wick the wetness from the material. Blow on remaining moisture until dry. A three-minute window now exists for using 'Bonding Techniques'. **Option A is the recommended method to use when bonding plastics. Wait 20 minutes before applying stress to plastic materials.**

Cautions

Debonder 401 removes Bonder from skin (peel, do not pull skin apart). When Activator is added to Bonder heat may be generated and may cause skin to burn. Use protective clothing for heavy industrial usage (vinyl polyethylene gloves, rubber apron, side shield glasses, etc.). Call a POISON CENTER/Doctor if you are exposed and feel unwell. Consult product labels and MSDS (available at cyvox.com) for more information.

Shelf Life

If stored properly in a cool, dry, dark place, Cyvox Bonders have a shelf life of 12-24 months. All other components will not expire if kept tightly capped and stored out of direct sunlight. Do not open until ready to use. Refrigerate Cyvox Bonders for best results, bringing contents to room temperature before removing cap to avoid condensation. Always return cap to bottles, avoiding prolonged exposure to temperatures above 120 degrees, direct sunlight, and high humidity levels.

Tips

Surface area is critical, as the Cyvox Bonding System relies on the strength of the material. In situations where strength is needed but surface area is lacking, look for ways of overlapping additional material(s) as reinforcement. Another effective method is to apply another layer of Bonder over the bond line to reinforce the break. Think of it as welding.

Always prepare materials so they are as clean as possible, this allows the Bonder to bond to the original material instead of the

rust, grime, etc. that may be present. Rubbing alcohol or acetone is a great surface cleaner as long as it dries before bonding. Metals tend to oxidize. Prepare these by using a light abrasive, such as sandpaper or steel wool to lightly buff them.

Generally speaking, less is more. Over-applying Cyvox Bonders or Activators can result in a failure to bond. Apply enough Bonder to lightly cover the surfaces. One exception: Larger volumes of Bonder are needed when materials to be joined are uneven or very porous (concrete, dry wood, etc.) If surface is extremely porous or uneven, you may want to use a 'filler' such as rubber or another less porous, flexible material, so less Bonder has to be used.

When using Activator to activate Bonder, use sparingly. Use only enough for it to lightly touch the Bonder. If you can see wetness after you've sprayed, you've used too much. Be careful, Activator has acetone added to it so your system has a built in cleaner/degreaser. It could damage finished, painted, vinyl or plastic materials if sprayed liberally on these surfaces. Test on these surfaces first. If Activator is damaging to surfaces, Bonder can also be 'spot activated' by brushing Activator onto the bond line.

Sharp shock to brittle materials may cause failure if Bonding System is improperly applied.

If buildup occurs on Bonder nozzle, spray tip with Activator making sure to point nozzle hole AWAY from spray pattern. Buildup should harden within minutes and be easily lifted off. Cap lock, clogged nozzles and (re-useable) Micro-needles may also be cleaned by submerging them in a small sealed container of Acetone/Finger Nail Polish Remover (available at hardware/paint stores) for 2-4 days. Always remove these buildups before returning cap to bottle for storage.

Temperature thresholds for the Cyvox Bonding System: - 65 to +230 Fahrenheit.

There are various factors that affect the performance of the Cyvox Bonding System (material, humidity, application process, etc.). If you have a question about whether or not the Cyvox Bonding System will work for your particular application, the best advice we can give is to go to Cyvox.com for updated Tips & Instructions, then try it first for yourself before calling or e-mailing. Thanks.

Disclaimer

Gowest2 International, LLC declines all responsibility for any damage (including that to third parties) resulting from improper use or application of the Cyvox Bonding System.