



## WE'RE HERE TO HELP

These instructions are intended as general guidelines for trial applications of our product, but optimal crosslinking results can often depend on a variety of factors (substrate, ratio of solvent to compound, application method, environmental conditions, etc.)

To achieve the best possible results in your trials, we encourage you to reach out to us before getting started. Our knowledgeable team can answer questions and provide advice specific to your unique applications. Our success is made possible through your success.

If you have questions, concerns, or feedback, contact your XLYNX representative, or send us a message at: [info@xlynxmaterials.com](mailto:info@xlynxmaterials.com).

For more information, updates, and video demonstrations, visit us at: [www.xlynxmaterials.com](http://www.xlynxmaterials.com)

# **BONDLYNX BXW-202** **INSTRUCTIONS FOR TRIAL USE**

## IMPORTANT:

- BondLynx BXW-202 is activated by heat or UV light:
  - Always keep samples and prepared solutions stored in a refrigerator or freezer when not in use.
  - Freezer storage is highly recommended for long-term stability.
  - Do not use heat to evaporate solvent, as it may initiate crosslinking activation.
- Surfaces must be clean before applying BondLynx. Precleaning with isopropanol (or ethanol) 70% solution is recommended.
- BondLynx should be applied as a thin, even coating. **More is not better;** Excessive application will weaken the effectiveness of bonds.

## WHAT YOU'LL NEED:

Depending on your application, the following will be required:

- Solvent (ethyl acetate, hexanes, diethyl ether, acetone, or isopropanol recommended).
- Vial or container for mixing BondLynx with the solvent.
- Liquid dispenser (pipette, dropper, brush, etc.).
- UV curing chamber, handheld UV curing device or curing oven.
- Standard personal protective equipment for safe handling of chemicals (e.g., gloves, masks, eyewear).

## 1. PREPARE BONDLYNX SOLUTION

Prior to use, BondLynx must be mixed with the solvent of your choice so that only a thin layer of solution is applied to your material:

- The ratio of BondLynx-to-solvent will vary according to substrate and use. For reference: 1 - 10 mg of BondLynx per in<sup>2</sup> (0.15 - 1.55 mg per cm<sup>2</sup>) is generally sufficient coverage.
- Mix thoroughly until BondLynx has completely dissolved.
- Refrigerate and/or limit exposure to light until ready to use.

## 2. APPLY BONDLYNX SOLUTION

- For best results, ensure that the surfaces of the materials to be treated are as smooth as possible (no raised edges, surface defects) and have been cleaned of any dust or residue. Precleaning with isopropanol (or ethanol) 70% solution is recommended.
- Your BondLynx solution can be applied using a variety of methods. For trial purposes, XLYNX recommends using either a dropper, pipette, or infusion bath, as follows:

Method	Application
Dropper / Pipette (For Precision Applications)	<ul style="list-style-type: none"><li>Apply BondLynx solution in a <b>thin, uniform layer</b>.</li><li>You may need to use a small brush or the tip of your pipette to spread the solution evenly across the bonding area.</li><li>When using BondLynx as a single-agent adhesive, treatment of only one of the two surfaces being bonded is generally required.</li></ul>
Infusion Soaking (For Textile Applications)	<ul style="list-style-type: none"><li>Place textile in a close-fitting tray or pan.</li><li>Add enough BondLynx solution to completely soak the textile material.</li><li>Cover and allow to soak for 20-30 minutes.</li><li>Drain excess BondLynx solution.</li></ul>

## 3. EVAPORATE SOLUTION

- Regardless of how BondLynx solution has been applied, the solvent must be **evaporated completely** before proceeding to prevent BondLynx from crosslinking with the solvent during the curing stage.
- Evaporation times will vary according to the solvent and material being used. Allow 30-to-45 minutes for low boiling point solvents, and 60+ minutes for textile infusions.
- A freeze dryer or ventilated fume hood can be used to accelerate the evaporation process. Do not apply heat to evaporate the solvent, as even modest heat can initiate crosslinking reactions.

## 4. ACTIVATE BONDLYNX

- Your treated material is now ready for activation (or curing). Activating BondLynx will cause molecular crosslinking reactions to occur across the treated area. This is also the stage where your treated material may be bonded to another untreated material.
- BondLynx BXW-202 can be activated by either UV light or moderate heat, depending on the material being bonded and/or the desired curing method.
- NOTE:** When BondLynx is used as a single-agent adhesive, the materials being bonded must be clamped or secured tightly together prior to curing to avoid gaps.

### OPTION #1: PHOTOCURING (ULTRAVIOLET LIGHT)

- BondLynx BXW-202 can be photocured using 365nm wavelength UV / visible light. For reference:

Wavelength	Intensity*	Duration**
365nm	6.7 mW/cm <sup>2</sup>	10 minutes

\* Measured in a UV curing chamber at approx. 5" to 6" for 365nm light.

\*\* Duration may depend on the intensity of UV light and the UV transmittance of materials used in certain applications. Use table as a guideline or consult with your XLYNX representative for advice.

### OPTION #2: THERMAL CURING (OVEN HEAT)

- Optimal thermal curing of BondLynx BXW-202 takes place at a temperature of **110°C (230°F)** over a duration of **2 hours**.
- BondLynx BXW-202 can be cured at a wider range of temperatures from **90°C to 180°C (195°F to 355°F)**. As this will affect curing duration, consult with your XLYNX representative, or contact [info@xlynxmaterials.com](mailto:info@xlynxmaterials.com) for advice.

## 5. LONG-TERM STORAGE & STABILITY

- BondLynx (neat) will remain stable for at least 4 years when stored in a cold, dark location (-20°C / -4°F). **For optimum stability, BondLynx samples should be stored in a freezer.**
- Mixed solutions will remain stable for up to 2 months when stored in a cool, dark refrigerated location.
- Avoid prolonged exposure to UV-light or room temperature conditions. Doing so can significantly impact BondLynx stability and performance.