



Processing Guidelines

NovAcryl Interior Photopolymer

Recommended Processing Times

Main Exposure <i>With proper vacuum and UV lamps at 360nm (Stouffer Scale reading of 16-17)</i>	5:00 minutes
Washout <i>Tap Water at room temperature 65-75F</i>	5:00 minutes
Dry <i>Preheat dryer to 125F</i>	10-20:00 minutes
Post Exposure <i>With no vacuum and UV lamps at 360mns</i>	5:00 minutes

Processing Note: Please use caution when handling NovAcryl immediately after processing. Strength will increase over 24-48 hours. You may wish to filter waste water before discharging into sewer. Refer to MSDS for recommended concentration of photopolymer effluent for disposal. Consult local authorities for regulations in your area. Please consult Nova Technical Support if any of the above processing times fail to produce satisfactory results. **Use only factory approved equipment for processing NovAcryl.**

Shear Cutting Recommendations: All NovAcryl products with a base thickness up to 1/8 can be sheared to a finished edge suitable for paint using an AccuCutter Finishing Shear and a Corner Mate radius cutter.

Routing Recommendations: Use a 1/2", 3 flute McMaster-Carr bit #35505A65 or a 3/4" two flute straight bit or DML #01401 (1/2" shank, 3/4" Diameter) 2 flute helix trim bit. For table routers, use a two flute upward spiral carbide bit.

Finishing Recommendations: All NovAcryl products require a top coat to be applied after processing. Allow 48 hours after processing to apply top coat. Refer to our painting specifications for more details.

For more information visit our website www.novapolymers.com or call our Technical Support Team 1-888-484-NOVA

DISCOVER THE POSSIBILITIES

www.NovaPolymers.com

Processing Guidelines NovEX Exterior Photopolymer

Recommended Processing Times

Exposure

4:00–6:00 Minutes

*With proper vacuum and UV lamps at 360nm
(Stouffer Scale reading of 16-17)*

Washout

5:00–6:00 Minutes

Water temperature 95F. Use FOUR to SIX ounces of XP Cleaner in the washout tank to aid washout. If copy areas remain Un-washed after processing time expires, you may use a fine bristle brush to clean in and around copy. This should take no longer than a minute or two; otherwise, you may have an exposure problem unrelated to washout.

Dry

15:00 Minutes

Preheat dryer to 125F

Post Exposure

5:00 Minutes

With no vacuum and UV lamps at 360mns

To improve finish, clean with a fine wire brush with denatured alcohol or acetone prior to painting.

Processing Requirements: Be certain to rinse washout tank with fresh water and fill to just below brush tips. Apply XP Cleaner in a circular motion atop the brushes. Change washout water after FIVE to EIGHT full sheets. When finished, drain tank, rinse and fill with fresh water. Processing can be affected by the use of different photopolymer processing units, quality of film and age of UV lamps. The photopolymer layer of **NovEx** is VERY soft prior to initial exposure. Handle and cut with care. Advanced processing techniques can eliminate handling difficulties. Please consult your Nova Technical Representative regarding this process.



General Cleaning, Preparation and Trouble Shooting Data Sheet

CLEANING EXCESS RESIDUE AFTER WASHOUT: If excess residue is present on adhesive layer, place **NovEx** sheet in water basin or screen wash rack and brush with a 50/50 solution of XP Cleaner and water. This will remove excess residue from the adhesive layer. The material is thoroughly cleaned of residue when you see water “bead” off the material as if it were waxed.

IF EXCESS POLYMER APPEARS BETWEEN OR WITHIN CHARACTERS: Due to its high content of synthetic rubber and the fine thickness of many photopolymer washout unit brush systems, it is possible that all photopolymer may not be washed away from between enclosed characters such as “A” and “B”. In general, this unexposed polymer has absorbed sufficient water and is ready to be washed away. Use a nylon brush dipped in a 50/50 solution of XP Cleaner and water, use a screen wash basin and pressure wash the characters if needed. The excess polymer will be immediately removed.

IF MATERIAL APPEARS “OVER EXPOSED”: There are reflective characteristics within the photopolymer resin of **NovEx**. This may cause minor “fill” of certain bold fonts. The fill in will show up in characters such as “M”, “A”, “N”, and “W” where the angles are sharp and light penetration is excessive. To eliminate this, simply cut back main exposure time to 3:00. If you run a smaller Braille diameter, a double exposure may be necessary to achieve proper shoulder draft. To do this, expose the plate as normal, then pull out the exposure frame without turning off the vacuum, and place Rubylith strips over the characters, leaving the Braille exposed. Push the exposure drawer back in and expose for another 2:00–4:00 minutes.

OTHER TIPS TO OPTIMIZE YOUR PRODUCTION TIME AND OUTPUT: If aluminum does not stick to your green mat for washout, wipe both the green mat and the back of the aluminum plate (after exposure only) with isopropyl alcohol. If you do not wish to use your washout tank for washout, or do not find it efficient, you may place exposed plates in a developing tray, or water basin, filled with warm water and a few ounces of XP Cleaner. Allow to soak for 15 minutes. Remove from tray and power wash the plates using warm water in your screen wash basin. Blow off excess water, dry and post expose as usual.

Advanced Processing Data to minimize handling errors, we recommend the following processing sequence for NovEx: Apply a high bond, exterior grade adhesive (MacBond or similar) to pre-cut cast acrylic in the desired thickness. The acrylic should be in a sufficient quantity for all exterior photopolymer sheets in the job. Oversize cuts should be no larger than 19” x 25” and quantity should be determined in advance. Once the adhesive is applied, stack the acrylic near the photopolymer unit and begin processing. Immediately after the EXPOSURE phase, remove the **NovEx** sheet from the processor and LAMINATE to the cast acrylic. You may use the adhesive liner to cover the polymer layer while laminating. Use a rubber brayer or laminator and press aggressively. The exposed material will not be harmed no matter how hard you press. Return the laminated **NovEx** to the processor and resume processing as normal (washout, dry, post). (Note: The material now handles like solid based **NovAcryl**. Water does not migrate into laminating adhesive).

DISCOVER THE POSSIBILITIES

www.NovaPolymers.com

Processing Guidelines Kobo TC-851 Hot Stamp Machine

Hot Stamping Instructions:

- Cut the foil to a size that covers the raised elements. It is not necessary to be exact, just don't be short.
- Turn on the heating elements and set the temperature for around 180 degrees Celsius. Allow 15:00 minutes to preheat.
- Place the sign on the work table of the hot stamp unit.
- Place the foil down over the raised copy (the dull side of the foil is the face; you will see the true color through the back of the film carrier).
- Push the work table back into the machine directly under the heated silicone pad.
- Bring the heated silicone pad down onto the foil and sign with minimal pressure for approximately 1 second, or until just after pressure is applied. (Note: Required pressure will increase with larger copy areas)
- The thermal activated pigment that is transferred melts onto the sign face and the process is complete.



If your first stamp does not give you full coverage, you can correct the problem by simply leaving the foil in place and turning the sign on the work table. There should be no seams caused by multiple impressions, provided the foil is a single piece covering the entire character being stamped.

For large, multiple image areas, an additional soft pad may be placed underneath the sign panel before applying pressure with the heated silicone pad.