RecycleTop® Surfaces Fabrication and Finish Instructions

RecycleTop® Composite Surfacing works similarly to extremely hard wood and many solid surfaces. No specialized equipment is required. Finish edges show a natural, subtle banding and random distressing.

PROTECTIVE EQUIPMENT: Always work in a well-ventilated area, using ear and eye protection, wearing a quality mask rated for wood dust. Wear gloves and exercise caution when handling raw sheets. RecycleTop® is heavy. Factory edges are SHARP.

SPAN: Maximum recommended unsupported span for two side support is 36”
OVERHANG: Maximum recommended unsupported overhang is 12"

TOOLS/EQUIPMENT/SUPPLIES:

- Triple chip carbide blades, 40 or greater tooth count. Choose heavier blades to minimize flutter or distortion in the cuts due to the hardness of RecycleTop®
- 2-flute router bits
- Carbide drill bits & countersink (or combination bit)
- Biscuit jointer (optional)
- Sandpaper & abrasives to fit belt sanders (if desired) for edge cleanup:
    - 100 Grit
    - 180 Grit
- Sandpaper & abrasives to fit random orbital sanders for finishing:
    - 150 Grit
    - 220 Grit
    - 3M 7448 Scotchbrite or comparable
- Acetone or Denatured Alcohol to remove manufacturing wax residue. DO NOT USE LACQUER THINNER!
- Two-part clear epoxy adhesive (30 or 60 minute set time) or CA5/Super Glue
- Biscuits, splines OR tight-joint post form laminate fasteners
- Stainless Steel Grade 8 flat head wood screws, size as required. It is recommended that lesser grade hardness screws **not** be used due to the hardness of the RecycleTop®.

TOOLS/EQUIPMENT/SUPPLIES (continued):

- Silicone sealant of appropriate color or clear
- RecycleTop® Finish and Conditioner
- Soft lint free cloths for buffing Finish and Conditioner

TIPS:

- Fully support slab at all times during cutting/machining to eliminate binding of tools due to a shift in weight.
- Increase cutting rate if you detect heat.
- Coarse shavings indicate appropriate cutting rate.
- Plan accordingly to maintain cutting pace in areas such as inside corners.
- Make several practice runs on scrap material with all tools.
- RecycleTop® can be tapped for machine threads and threaded inserts.
- Fabricate from same batch code material to ensure best color match at seams and built edges.
- Be diligent to hold top surfaces level at seams during fabrication and installation to ensure any subtle thickness variation falls to the bottom of the countertop. Do NOT sand to level; there is a risk of visible layering if sanded too aggressively. This is particularly true of Jet Black
- RecycleTop® is extremely hard. Monitor tool edge quality/performance and replace as required.
- RecycleTop® seams may be visible and placement should be considered in the design and layout process. Plan seams away from sink cutouts and cook top cutouts.

JOINING SECTIONS, BUILT UP EDGES:

Cutting for seams:

Choose one of the following methods:

- 'Mirror cut' by setting up the two pieces of RecycleTop® on a level surface with spacers of uniform thickness lifting them off the surface to enable a router bit to cut through the entire thicknesses. Space the two pieces so that a router run against a secured fence shaves a thin section of both edges, creating a mirror edge. Be certain to avoid chatter.
- OR: On a high quality table saw with adequate support on **both sides of the cut** to ensure no weight induced movement of the pieces of material, cut the sheets.
- Scrub both faces with Acetone or Denatured Alcohol to remove manufacturing wax residue. Omitting this step may cause glue joint failure. DO NOT USE LACQUER THINNER!

Cutting for seams (continued):

- RecycleTop® is slightly directional in appearance running the length of the sheets. For best seam appearance, plan cuts and mark material to control orientation of the surface.

It is appropriate to rough cut pieces to decrease the weight of the finish pieces to ease handling during finish cut operations. Mark with tape or non-permanent marker to maintain directional orientation.

Joining:

Choose one of the following methods:

- Use a biscuit joiner to cut slots for standard biscuits
- OR: Machine holes for tight-joint fasteners as used to connect sections of post form laminate counters
- OR: Machine for splines
- IN EITHER CASE: Glue the joint with the recommended 30 or 60 minute epoxy.
    - The epoxy can be tinted with sanding dust if desired.
- ENSURE THAT THE SURFACES OF THE JOINED PIECES ARE ALIGNED TO THE TOP (EXPOSED) FACE, not the bottom face.

Built-up Edges:

It is recommended that either a double stack method (recommended) OR a miter drop edge be used; other techniques with a rabbet cut into the face edge and a strip the desired vertical dimension have also been successfully used; V-groove drop-down is not recommended.

- Scrub all faces with Acetone or Denatured Alcohol to remove manufacturing wax residue. DO NOT USE LACQUER THINNER!
- For best appearance, use fall from the same sheet & preferably the same SIDE of the sheet to build the edge.
- Built edges should be glued and screwed. Maximum spacing on screws is 12".
- Miter drop edges should be joined using glue and either splines or biscuits in addition to screws or some kind of mechanical fasteners using a backer.
    - Miter drop edges MUST be eased or routed a minimum 1/8" to minimize chipping.
- Glue can be clear or tinted with sanding dust as desired. Build a sample edge first to determine which provides the most inconspicuous seam.
- Use best shop practice to minimize requirement for glue cleanup, misalignment of the stacked edge to the main surface, etc.
- Edges can be detailed as desired using typical sanding/easing or routing techniques. Prevent chatter and overheating while working the finish face of the built edge.

SANDING AND FINISHING:

Unlike solid surface materials, RecycleTop® is not machined to achieve a perfectly flat surface. The manufacturing process and the natural composition of RecycleTop® leave the material with a slight 'hand' or surface texture. There may also be light scratches incurred during shipping and handling. Although the finish face should be sanded to remove such scratches, it is important to hold sanding to a minimum. Again, practice on a scrap piece of RecycleTop® will help familiarize the fabricator with its unique qualities to ensure high quality results. The finish edge of RecycleTop® may show 'banding' and subtle random 'distressing'.

- **Machining marks** on cut edges should be first sanded with 100 grit if required to remove, finishing with 220 grit. Use a belt sander or random orbital.

- **The most common finish is a satin sheen. This is achieved by following the steps below:**
    - Blend out deck seams with 150 grit and then sand overall surface and edges with 220 grit paper on a random orbital sander.
    - Clean surface of all dust and grit.
    - Buff the surface and edges using 3m #7448 Scotchbrite.
    - Wipe surface clean with damp, soft cloth.
    - Inspect and continue with #7448 pad to achieve desired surface appearance and consistency. REMEMBER, RecycleTop® will always exhibit some degree of surface variation or 'hand'.
    - Clean with damp cloths and dry surface and edges.
    - Apply RecycleTop® Finish and Conditioner per bottle label instructions. Buff as directed with soft cloth or fine polishing bonnet.
    - Plan on buffing the surface by hand upon installation of the countertops. No machine is required for this step.

INSTALLATION TO CABINET DECK OR SUPPORTING STRUCTURE:

- Protect the finished countertop during transportation to the jobsite to avoid scratching or chipping.
- RecycleTop® can be installed to cabinets/supporting structure using conventional silicone adhesive dabs and/or Grade 8 Stainless steel screws, best to use both together. Local building codes should be followed.
- Best practice techniques should be utilized to ensure a level and secure installation.
- Scribe to vertical wall surface using best installation practice.

SINK & COOKTOP INSTALLATION:

Sinks:

- Sinks should be mounted utilizing manufacturer's recommendation, with the exception of the substitution of Grade 8 Stainless Steel screws if not specified by the sink manufacturer.
- Sealants for sink installation should follow sink manufacturer's recommendations.
- UNDERMOUNT Sinks: If desired, a built edge can be installed at the sink opening.
    - Scrub faces with Acetone or Denatured Alcohol to remove manufacturing wax residue. DO NOT USE LACQUER THINNER!
    - Rough cut the sink opening, leaving approximately ½" excess.
    - Build edge around rough opening on bottom surface of countertop using material from the same sheet of material. Use the same techniques to build edge as described in "Built-up Edges" section above.
    - Edge strip piece MUST be large enough to allow for installation of sink retaining hardware. Use Grade 8 SS screws as recommended.
    - When glue is dry, route out the finish opening.

Cooktops:

- Cooktop cutouts should be cut by first drilling 3/4 to 1" holes in the 4 corners of the required cutout, then cutting with router or other tool to complete cutout.
- Support the piece while working to prevent binding of the cutting tools or damage to the material itself while cutting.
- Cooktop manufacturer's requirements should be followed to determine the actual size of the cutout and clearance to the cooktop/countertop material and to any supporting cabinet structure.
- Cooktop manufacturer's specification for required support should also be followed.

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