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**Website:
www.rainbowridgekits.com**



**Ross & Sue Piper
Phone or Fax:
619-561-0643
Email:
rainbowridgekits@aol.com**

BASIC INSTRUCTIONS & DESIGN GUIDELINES

BEFORE WE BEGIN...A few words about Precision Board....The following instructions are simply what works best for us. One of the many fantastic aspects of this great product is that no two completed projects will be exactly the same, even if they began as identical kits. Any tool that you can use on wood, including saws, drills, wire brushes, sandpaper, craft knives, Dremel® and dental tools, can be used on Precision Board. Several of our San Diego Garden Railway Society members work with PB and each has developed a unique style, in spite of the fact that we learned about the material from one another. Please take the time to read through all of our instructions. We suggest that you experiment with sample pieces before you actually begin your project. Do not hesitate to email or call with any questions or comments.



ENDLESS POSSIBILITIES!!!

Guidelines to consider when designing your project:

Precision Board is a high density, closed cell, urethane product manufactured by Coastal Enterprises in Orange, California. Because it does not absorb moisture, and will not rot or deteriorate, it is perfect for structures and accessories in outdoor garden railways. Precision Board has no grain, hence it has no beam strength. 1/2" material is suggested for projects up to 24" long. 3/4" material is recommended for projects over that, up to 48". Braces, gussets and other supports should be part of your design. We suggest using no less than 18# density material for projects where texture and grain are important. Use 20# density where sharp edges, corners and details are critical.

Assembly:

We have the best success using Gorilla Polyurethane Glue for raw Precision Board joints. Non-foaming glues are easier to use, but do not form the strong bonds needed for lasting strength. We miter all corners. Apply glue sparingly in flat continuous beads, keeping to inside edge of corner. Spray with a fine mist of water to insure curing. Stainless steel pins can hold corners temporarily. Either clamp or shrink wrap pieces together while glue sets up. Excess glue can be cleaned off with acetone before it cures. Coastal Enterprises has recently approved the use of quick setting glue, in gel form only, with the requirements that it be applied in a continuous bead and the joint be clamped during cure time. Crazy Glue type products can also be used to attach small pieces of trim that will be primed as part of the structure. Metal fasteners, such as screws or brads, are not recommended due to expansion and contraction of the various materials.

Adding Texture:

Brushing with a wire brush enhances our wood patterns by adding "grain" and texture. Dremels, dental tools, etc. can be used for knot or worm holes, board ends and nail holes. Most stone and block patterns come to life with texture added with Dremels, chisels, craft knives, dental tools, etc. Remove all dust from texturing before proceeding.

Equal coats on all surfaces:

It is critical that you apply equal coats of primer, paint and sealer to all surfaces, both inside and out. This prevents any possible warping that might be caused by the tension applied to the surface when these coatings are drying.

Using Primer:

Precision Board's only known enemy is the UV ray. Priming with a high density urethane compatible primer that specifically provides UV protection is also critical to the longevity of your project. Many skip this step in deference to added cost and time. Considering the effort you will invest in your creation, why take a chance and ignore the number one mandate of the manufacturer? Primer also ensures paint adhesion. We offer the primer made by Coastal Enterprises specifically for Precision Board in 4 and 8 oz. cans. It is included in all of our kits.

Paints:

Any exterior paint can be used. We use the acrylics such as Americana, Delta Ceramcoat and Apple Barrel which are sold in all craft stores,. There is a tremendous array of colors available in convenient 2 oz. bottles.

Grout:

If you are grouting your project (brick, block, etc. patterns), first be sure the paint is completely dry, 2 or 3 days is best to ensure curing of the paint. Then grout with **non-sanded** tile grout available at most home improvement stores. Gently remove excess grout with a soft sponge, being careful to avoid damage to the paint.

UV Resistant Sealer:

After all paint and grout have dried, seal all surfaces with a UV resistant, clear, matte finish sealer such as that made by Krylon available at many craft stores.

Final Assembly:

Once the PB has been primed, non-foaming glues can be used for final assembly. We prefer clear Silicone, but products such as Titebond III Wood Glue and gel type Crazy Glue work fine for attaching small trim and detail. To attach roofs, metal panels, etc., silicone is best because it allows for the expansion and contraction of different materials.

Warranty from Coastal Enterprises:

Coastal Enterprises, the manufacturer of Precision Board sheet, with the condition that your project is assembled, primed, painted and sealed per their directions, warranties Precision Board against deterioration for the lifetime of your project.

Things we use for adding texture:

1. Dremel® type tool with appropriate bits. To carve joints by hand, we use #7134 for all basic joint carving and either #945 or #84922 for creating additional depth or texture. Some manufacturers make bits narrower than the #7134. These work very well where smaller joints are desired. Begin carving or texturing at a slow speed, gradually increasing until you find what is comfortable for you. If the bit wanders, try speeding the Dremel® up for better control. We use modified grinder bits, with chunks broken off of the end, to add texture to our stone patterns. Dental tools add detail, such as knot holes on our wood patterns. Wire brushes add grain to wood, texture to stone. Wood chisels and ice picks work great too.
2. Metal ruler and guide. Ones with thin cork adhered to the backside do not slide around as much, hence are easier to use.
3. Pencil for marking guidelines and joints. A 5mm mechanical pencil is great.
4. Some method to remove carving dust, such as a vacuum with a brush attachment, an aerosol can of air, or a compressor air tool.
5. A folded towel or cushion to rest your work on.
6. Even though Precision Board is a non-toxic material, you may want to wear a standard particulate dust mask. Protective eyewear is always suggested.



Brick

With our fully carved brick material, no additional carving is required. Careful layout is necessary with all of the masonry patterns so that the building corners are realistic with the face of the brick or block on one elevation and the end of it around the corner.



Flagstone



Random Stone

Add texture to our fully carved stone, block and paver patterns with a Dremel®, dental tool, wire brush, etc.



Wood Plank

Our Wood Plank, Board & Bat, and Log patterns have the joints between boards and logs already planed into the Precision Board. You can round edges of boards and logs as desired. Wood texture is added with wire brushes. Knot holes, splits in wood, etc., can be done with a Dremel®, dental tool or craft knife.



Logs



Composition Shingle Roof



Mission Tile Roof



Scalloped Shingle Roof

No carving is required on our roof patterns.

There you have the basics. Now have fun with this exciting material. More detailed instructions are included with every sheet or kit purchase. Always feel free to email or call with any questions.

Best of luck in your Garden Railway adventures!!