



Staining and Weathering Stripwood

Part 1

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As a member of Railroad-Line Forums (www.railroad-line.com), I frequently get asked to explain how I stain and weather the stripwood for my HO scale model structures. There is really no secret; all it takes are a few inexpensive paints, some drawing ink, and the willingness to practice or experiment on some scrap pieces of wood.

Before starting, it should be noted that the methods described below are not original with me. For example, most of us are aware of the old method of "weathering" stripwood and sheetwood with black ink mixed

in alcohol. Likewise, those of us who have built a Sierra West or Rusty Stumps kit are familiar with the "soaking" method for staining stripwood. What I have done is expand on those other ideas.

Also, it should be noted that the recipes and methods described below should **not** be used with sheetwood (aka "scribed siding") unless

Staining and weathering stripwood for a realistic appearance is very simple. All that's required are a few inexpensive paints, drawing inks, and ziplock bags.

your goal is badly warped and curled wood. But it's great for stripwood – and the water will not warp it, no matter what the Nervous Nellies and Richard Rivetcounters try to tell you.



What you'll need....

Water-soluble black drawing ink. Higgins is a common brand and is available at Michaels, Hobby Lobby, and art supply stores. Other brands are also available and work just as well. Note: *waterproof India ink does not work well with the recipes listed on pages 3 and 5.*

Inexpensive acrylic craft paints. These are available from Michaels, Hobby Lobby, Walmart, Jo-Ann's, and many other sources. Apple Barrel, Americana, Folk Art, and Delta Ceramcoat are common brands. For the basic recipe, you will need the following:

- Raw Umber
- Burnt Umber
- Americana's "Khaki Tan" or Polly's "Earth"
- any one of the following: generic black or Americana's "Charcoal Grey" or "Graphite"

The following colors are also useful when modifying the basic recipe to achieve a particular shade or color for the stripwood:

- Burnt Sienna
- Raw Sienna
- Americana "Asphaltum"
- Folk Art "Barnwood"
- Apple Barrel "Brown Oxide"

Resealable/leakproof storage bag(s) (aka "Ziplock")

How many you will need will depend up whether you sort and/or precut your stripwood prior to staining. I use the quart and 1-gallon sizes, which will accommodate most lengths of stripwood.

A glass jar with watertight lid. The jar needs to be large enough to hold 20-32 oz. of liquid. I use old pickle jars.

In addition to the items listed above, you may also want to have the following materials on hand for special staining and weathering techniques:

- Winsor & Newton "Ivory Black" gouache
- Daler-Rowney "Warm Gray 2," "Warm Gray 3," and "Raw Umber" gouache
- Grumbacher "Indian Red Hue" watercolor pigment (tube, not dry cake)
- Solvaset decal setting solution
- Ceramcoat "Acrylic Thinner"
- Folk Art "Barnwood"
- Ceramcoat "Eggshell White" or "White Wash"

[Note: the uses of these "special" materials will be explained in part 2, "Weathering Stripwood."]



🖌️ A special note about gouache. Gouache (pronounced "gawash") is a specially formulated watercolor pigment. Unlike traditional watercolors, which are translucent, gouache is a heavier, opaque pigment. For models, it can be applied in varying densities with a brush or other applicator to achieve some stunning weathering effects on both structures and rolling stock.

Getting started....

What we're aiming for is the gray-brown or brown-gray color that is commonly seen on older wood structures. The color itself comes from a combination of age and weather. Generally speaking, the older the wood the browner it will be. And the less protected from the elements it has been, the grayer it will be. As a result, the color we usually see on older, weathered structures is an uneven blending of the two— especially on those structures that were never painted or on which the paint has long since chalked and peeled off.

So with that in mind, let's get going.

Actually, staining the wood is a pretty simple process. In a nutshell, it involves mixing 1–3 inexpensive acrylic craft paints and black ink in about 18–20 ounces of water and then soaking the stripwood in the "stain" for up to 24 hours. I use Ziplock bags for the soak because it's easy to turn the mix every few hours.

Okay... for the structures in the photos on the right, this is the "recipe" I used:

- 20 oz. water
- 2 tsp. raw umber acrylic craft paint
- 1 tsp. burnt umber acrylic craft paint
- 1/2 tsp. black acrylic craft paint
- 1 tsp. non-waterproof black drawing ink

I mixed the ingredients thoroughly in an old pickle jar. After I placed all of the stripwood needed for a particular subassembly into a bag, I poured in the stain and sealed the bag. (Note: it's not necessary to pour all 20 ounces of stain into a single bag. Pour just enough to cover the stripwood completely. That way you should have plenty of stain for soaking multiple bags of wood, if you pre-sort the wood by subassembly or by size.) The stripwood needs to soak in the mix at least 12–15 hours to take on any color from the pigments in the water. I usually leave mine in the bag about 18–24 hours. **It's also important to turn the bag every few hours and thoroughly slosh it around** because the pigments will settle out of solution over time, although a concentration of pigments on several pieces of wood can lead to some interesting color/shade variations.



By substituting colors and amounts in the basic recipe, it's possible to get many different shades to your wood. For example, for the floorboards in the photos on the right, I used 1-1/2 tsp. of burnt umber and 1-1/2 tsp. of burnt sienna plus flat black and black ink.

When you take the stripwood out of the bag, make sure the individual pieces are separated and allow them to dry thoroughly on some newspaper or paper towels. I generally allow mine to dry at least 48 - 72 hours before I begin working with them. It's important that they be separated while still wet. If they are allowed to dry while stuck together, that's how they will stay - stuck together! The paint pigments will act as a cement, and separating the boards without breaking them will be very difficult.

The final step is a simple one of conservation. After I have removed all of the wood from the bag and separated it for drying, I thoroughly slosh the remaining stain in the bag and pour it back in the jar for later reuse. Under most circumstances, the stain will keep for several months, and I can use it again for another project or two. I then rinse out the bag(s) because they can also be reused another time or two.



As can be seen in the examples above, a wide range of colors and shades can be achieved just by varying the amount of time the wood is left to soak in the stain and/or by substituting various colors and amounts in the basic recipe.

Note: be sure to download Part 2, "Weathering Stripwood." There I explain how I use gouache, watercolor pigments, and other simple art supplies to enhance the stained wood.

The recipes...

Staining stripwood is more of an "art" than it is an "exact science." For that reason, the quantities given in the recipes below do not have to be exact measurements. Don't fret if you get a little more or a little less of a specified color in the mix. It's just one of many variables that goes into making a stain and using it with your stripwood. Time, temperature, the surface of the wood, even the hardness of the water can all play roles in the finished results. All of the recipes will yield good results in the end. But what really matters is what looks good to you. Some of the recipes will yield wood that is more

brown than gray; others will yield the opposite. And yet others will yield a wood that is more red than either brown or gray. Again, it's really a matter of what looks good to you and looks best on your model. **But above all, experiment on some scrap stripwood before trying any of these on an actual model.** Knowing what you like and need ahead of time can save you from grief later. Also, **don't be afraid to alter the the recipes to suit yourself.** The amounts and colors are only printed on paper, not carved in stone.

Dull gray #1.

- 18-22 oz. water
 - 1 tsp. Americana Charcoal
- Gray
- 1 tsp. Americana Graphite
 - 1/2 - 3/4 tsp. Americana
- Khaki Tan
- 1 tsp. black ink

Brown-gray #2

- 18-22 oz. water
 - 1-1/2 tsp. raw umber
 - 1 tsp. burnt umber
 - 1-1/2 tsp. Americana
- Asphaltum
- 1 tsp. black ink

Medium brown

- 18-22 oz. water
 - 1 tsp. raw umber
 - 1-1/2 tsp. burnt umber
 - 1 tsp. Americana Khaki
- Tan
- 1/2 tsp. black ink

Gray-brown #1

- 18-22 oz. water
 - 1 tsp. Americana Charcoal
- Gray
- 1 tsp. Americana Graphite
 - 1 tsp. Apple Barrel Brown
- Oxide
- 1/2 tsp. Folk Art Barnwood
 - 1/2 tsp. burnt umber
 - 1 tsp. black ink

Red-Brown #2

- 18-22 oz. water
- 1-1/2 tsp. burnt sienna
- 1/2 tsp. raw sienna
- 1-1/2 tsp. burnt umber
- 1 tsp. black ink

Deep Brown

- 18-22 oz. water
 - 2 tsp. raw umber
 - 1 tsp. burnt umber
 - 1/2 - 3/4 tsp. Americana
- Asphaltum
- 1/2-3/4 tsp. Apple Barrel Brown Oxide
- Brown Oxide
- 1 tsp. black ink