

Ink Durability

by Robert W. Chambers

Some marks that we make on logs we want to last a long time. The labeling we do for reassembly, for example, should be as permanent as possible. We expect every shell to be built, delivered, and assembled quickly...but what happens if the unexpected happens?

I tested pencils and pens used for scribing logs, and bigger felt tips used for a variety of other marking and labeling to compare their durability to weathering. All of the markers I tested were labeled by the manufacturer as “permanent.” I used slabs off-cuts from building logs, drew on them with various pens, pencils, and markers, and put them on the roof of our office building in full exposure to sun and rain from early spring (November 11th in New Zealand) through to mid-winter (July). Here are the results.

For scribing, the most durable lines were made with indelible pencils, Lumocolor 318 fine tip black, and with Fisher Space pens with black ink (Figure 1 shows a slab of log on the day I marked it, 22 days later, and 244 days after I marked it). Blue-ink pens like Grieb Gearhead scribes and Fisher Space pens (“PSGBBU” in Figure 1) in blue were only moderately durable—they started to fade in less than 3 weeks, and in 8 weeks were practically invisible. Red inks were the least durable of all. The Lumocolor permanent red medium tip 317, in the middle right of each photo of Figure 1, was gone without a trace in 3 weeks.

Sanford “No-Blot” and Lee Valley “Veritas” are indelible copying pencils that can be used for scribing, and Lyra makes a carpenter’s (oval) indelible that is broader and softer that can be used for marking. All of these worked well, and lasted very well. The Veritas hard pencil looked slightly sharper and more distinct after 244 days. The dye in indelible pencils is generally aniline, which is not durable in light, so it may be the graphite in indelible pencils that is actually the key to their longevity on wood—maybe the fact that aniline dyes are water soluble is just a way of making indelible pencils softer, and for depositing more graphite on a log than conventional graphite pencils deposit.

Larger pens for marking and labeling were also tested (Figure 2), and the most durable inks I tested were black. Blue was moderately durable, and red inks were not at all durable. The exception to this was that some red crayon-type markers (like the expensive, gooey Sanford “Mean Streaks”) were moderately durable (Figure 2). The red “Copic” marker (Figure 2, upper left) lasted only a few weeks.

But not all black permanent markers are created equal. On the bottom left of each photo of Figure 1 note that the Faber Castell black felt tip model 1585 faded away completely, while the Staedtler (middle left of all three photos) remained dark for more than 244 days. So when a manufacturer says “permanent,” it pays to verify that yourself.

We have been using the Sharpie “Paint” markers lately—they

have a valved felt tip (in a variety of widths), that when depressed releases paint into the tip. You can get a good quantity of ink out, and this seems to be a key to durability: flood the wood with ink or paint (Figure 2). Other paint markers, like the Uni-Paint PX-20 medium (red) actually turned white after 4 weeks—almost like SPF-50 sunblock on the wood as the wood turned gray. The paint markers (and most all felt tips) do not work well on damp or wet wood.

Sharpie also makes both the “Rub-a-Dub” laundry pen (in 1968 my mother used these to write my name in the clothes I took to summer camp) and the 13601 “Industrial, Super-Permanent” ink felt tip marker (Figure 2). They appear to be identical, and lasted about the same amount of time in my test. I tested the black only. Pat Clark and Paul Kaszuba prefer the blue.

The tests shown here are on log slabs (saddles) cut from green Douglas fir, and I noticed that the ink-durability was better in early wood (summer wood, lighter colored, more porous) than in late wood (winter wood, darker, less porous). Again this shows that if you can get a large quantity of ink or dye or paint deposited it will help durability.

There are times when you want to make marks that would be best to fade off – it would mean you might not have to peel or sand them off. In that case, use red ink.

When buying, shop around, because prices for pens and markers vary. Several online stores offer discounts of 40% below retail price (check out www.discountofficesupplies.com and www.office-supplies.us.com). Fisher Space Pens are available from Schroeder’s, or direct from the manufacturer by calling Margaret McKay at 1-702-293-3011—note that you can get these space plotter pens in a variety of lengths, up to 3.5”,

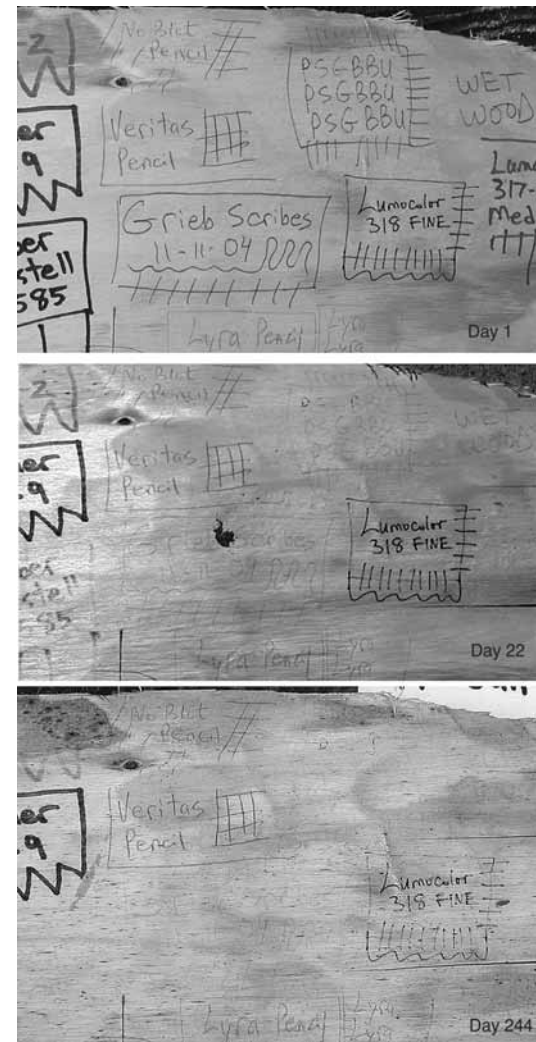


Figure 1