of petroleum-based solvents increased. By the 1930s, true oil-based paints were being replaced with the synthetic alkyd paints used today. Then, during the building boom that followed World War II, production building and the DIY movement took hold. Fast dry times and ease of use became paramount, and a large store of petroleum by-products from the war effort led to the rise of a new category of paint that improved on alkyds' flaws.

Latex paint, which would later become known as acrylic paint (today's versions have little to no latex), was popular immediately. It was easy to work with, had no strong odor, dried quickly, cleaned up with soap and water, and provided some flexibility compared to the harder-drying oil paints.

So in short order, oil paints became alkyds, alkyds gave way to acrylics, and linseed was all but extinct. As Erin Gibbs and Katherine Wonson summarize in their National Park Service technical bulletin, "Purified Linseed Oil: Considerations for Use on Historic Wood," the change was dramatic: "The rapidity and completeness with which synthetic paints overtook the market is exceptional. Consider that in the span of 60 years, linseed-oil paint, the dominant paint in the U.S. for 200 years, has almost completely faded from consumer consciousness."

But along with the new paint came new problems, particularly rotting wood and peeling finishes.

Protection beyond the surface

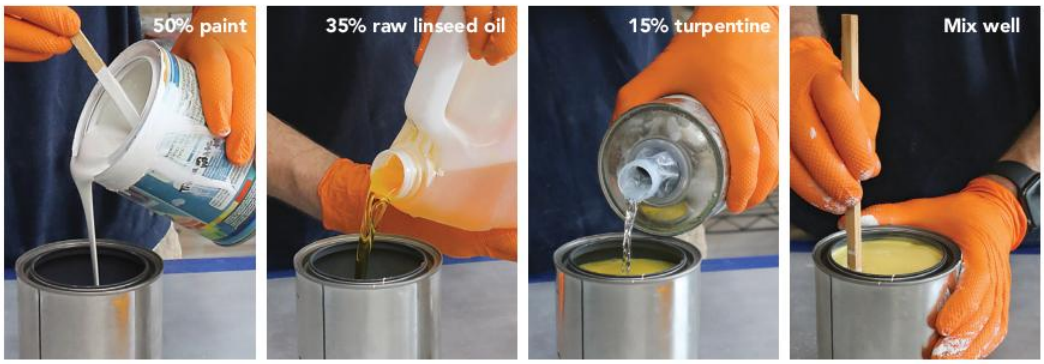
Aside from ease of use, perhaps the biggest benefit to plastic paint is that it's stretchy, which is crucial for a product designed to protect wooden surfaces by completely encapsulating them. Wood moves—seasonally, or in conjunction with structural shifting and settling—so a coating that can take some movement has a fighting chance of hanging on. But if the coating only protects the surface, then when a little water seeps into a crack, or enters the wood from the back side, it can take a long time to dry out, if it does at all.

Gibbs and Wonson explain: "Waterborne coating systems … do little to protect the underlying wood structure, which remains hygro-

FROM THE FIELD // PAINTING WINDOW SASH WITH

Linseed oil paint is a three-coat system, but you don't need a separate can of primer—the first coat is just linseed oil paint thinned before application. The biggest mistake most people make it applying it too thick. Very thin coats are key. This paint will stick to just about anything, but you won't get the full benefits without removing existing paint and getting back to bare wood. Brushes don't need to be cleaned between coats—just store them in raw linseed oil—but be careful of oily rags, which pose a very real risk of fire. Lay them flat to dry, or soak them in water before disposal.

THE FIRST COAT SOAKS INTO THE WOOD



THIN THE FIRST COAT The "primer coat" is linseed oil paint thinned with raw linseed oil. Mixing proportions vary by manufacturer, but generally the recommended ratio is somewhere between 70% oil and 30% paint and a 50/50 split. Some brands suggest a bit of balsam (or pure gum) turpentine to speed drying. I've found that a ratio of 50% paint to 35% boiled linseed oil and 15% turpentine works well.

GO NATURAL Linseed oil paint can be applied with a natural-bristle brush, or applied with a roller and then back-brushed into the surface.

LOAD A LITTLE The idea with the first coat is not coverage—it's to work the paint into the wood. A little goes a long way.

LET IT DRY Like other paints, linseed oil paint needs to dry completely between coats—at least 24 hours.