

Matching paint



A CSX freight heading east from Marion to Cleveland, Ohio, in August 2010 clearly illustrates why matching prototype paint colors is at best an elusive quest. Bruce Ernatt photo

One of the easier ways to start a heated argument among modelers is to ask what color a railroad painted its stuff. It doesn't matter whether you're asking about locomotives or passenger cars or freight cars or cabooses or even lineside structures. The debate will begin. And never end.

One of the classic examples is Pennsylvania RR's Brunswick Green. Seen in the proper light on a clean locomotive, the greenish hue is quite apparent, but it's also easy to understand why those with less discriminating eye for color might say, "Sure looks black to me!"

Those of us who model a smaller railroad have our own color wars. I'd say that 90% of the Nickel Plate Road cabooses now on display have a white stripe along the roof emblazoned with the railroad's famous and well-earned "Nickel Plate High Speed Service" slogan. The problem is that those stripes were painted a color called "aluminum gray," the silver version of Dulux (or imitation) gold.

The railroad's original goal, of course, was to have the stripes look "nickel." Alas, the metallic paints of the late

1940s quickly oxidized to a blackish color, as correspondence from the Frankfort, Ind., shops reveals. Photos confirm that the light-gray (not silver!) stripe was noticeably darker than the pure-white "NICKEL PLATE ROAD" road-name lettering directly below it, but somehow otherwise accuracy-minded folks didn't seem to notice that. Model manufacturers often make the same mistake.

While I was researching paint colors back in the 1960s, I stumbled across the fact that the blue used on NKP's Alco PA1s is the same DuPont paint-chip number as the blue used on Chicago & Eastern Illinois cab units. In 1970, I discovered that the orange "bib" on the nose of New York, Ontario & Western EMD diesels is the same as the orange on C&EI cab units.

Just as the small band of graphic artists at EMD and other builders reused the striping patterns on various customers' diesels, they reused the same paint colors, as well. So when a paint company releases, say, "C&EI Orange," the O&W modeler can take advantage of that windfall.

But this quest for authentic paint colors has a number of hidden pitfalls. First, as any experienced military modeler will tell us, we have to build in "atmosphere." More than most model railroaders, military modelers realize that our models need to be painted as they would be seen from scale distances. As a train rolls by maybe 3 feet from our eyes, that actually represents, for example, 87 (HO) or 160 (N) times 3 feet of atmosphere between us and the model. Our model paint should therefore be lightened to show the effects of haze.

Our lighting systems are also woefully underpowered compared to the sun. When I inspected a paint chip obtained from International Car Corp. for the gray stripe, my eyes told me it was much too dark. But when I butted it against a chip of NKP blue or caboose red and took them out into bright sunlight, everything looked right.


Our lighting isn't pure white, either. I prefer cool-white


fluorescents, which produce light rated at about 4100 kelvins (K). I can get a replacement CW fluorescent tube in almost any diameter and length on a weekend. You can start another argument about the color of sunlight, but good numbers to use are 5000 to 6000K.

Fluorescent tubes and compact fluorescent lamps (CFLs) are available in that range, and they are bright — and, ironically, look a bit too "cold" for my tastes.

There's also the little matter of fading. Harsh cleaning chemicals and ultraviolet rays (which fluorescents also produce) will cause considerable fading to many types of paint.

So no matter how perfectly you match the actual paint chips, no matter how you compensate for indoor lighting, you're still going to have to ask yourself how long whatever you're painting has been in service.

And then you can sit back and wait for the experts to tell you you're wrong. 



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— TONY