

DYES

Dyes were first developed or synthesized, in the mid 1800's. The main ingredient in the making of dyes was aniline, a byproduct of coal tar. Coal tar is the sticky residue left after burning coal. As a result, these dyes became known as coal tar or aniline dyes. This classification allowed them to be distinguished from the popular natural dyes that were in common use at the time.

While dyes made from aniline-based chemicals called "intermediates" technically refers to "aniline dyes", today the term loosely refers to all synthetic dyes. Modern dyes used in woodworking no longer contain aniline because it is very toxic and is known to be a carcinogen.

It seems to me that we need a different classification for the modern dyes we use, as "aniline" is clearly not appropriate, perhaps the following will help in this determination.

Today, woodworking dyes are classified either by the solvent used or by the chemical structure of the materials that make up the dye. These include:

Acid Dyes—These dissolve primarily in water, but sometimes finishers add alcohol to the solution of the water-based mixture. Water-soluble powdered dyes are almost always acid dyes. Acid dyes tend to have good lightfast qualities.

Basic Dyes—These also dissolve in water and tend to be extremely vivid and bright, but not very lightfast.

Metallized Acid Dyes—These dyes are similar to acid dyes, except they contain a metal such as chromium or cobalt that is incorporated into the dye structure increasing its light fastness. These dyes are often sold as concentrates.

Metallized Solvent Dyes—These dyes are similar to metallized acid dyes but are not soluble in water. These dyes come in powdered form and dissolve best in alcohol or ketones. These dyes are used to make non-grain raising (NGR) stains.

It's my guess that most of us are using acid dyes or metallized acid dyes, not aniline dye. So the next time someone asks, you'll know what to say.

If you're looking for more information on dyes or other finishing information, I highly recommend Taunton's Complete Illustrated Guide to Finishing by Jeff Jewitt. He covers all aspects of finishing in a step-by-step, clear and easy to understand way.