

# Clancy's Commercial

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## HIGH PERFORMANCE COATINGS

### GENERAL DESCRIPTIONS OF INTERIOR STAINS FOR THE CABINET AND FURNITURE INDUSTRY

Stains are produced in a great many colours, some of which are named after the wood colour they represent. A Walnut coloured stain may be used on Pine to give it the Walnut look, or a Maple stain on Birch. This deception is used to make a less expensive wood look like a more expensive one. Stains are used to beautify the wood, and give it colour and some protection. It is considered the first coat in a three coat finishing application. Stains must have certain qualities, in order to do a good job. They must hold their colour for a long period of time, be relatively easy to apply, and be compatible with the sealer and topcoat applied over it.

The market has many stains to choose from, and some knowledge of them will give you insight on the right one to select for your work. The raw materials used in the production of stain, has a direct bearing on how they function. Listed below, you will find several types of stain and their basic raw materials.

#### **Oil Base Stain**

An oil base stain has a drying oil as the main ingredient. This type of stain is often used as a one step finish, but it can be sealed and lacquered when dried properly. The stain consists of linseed oil, pigment, anti settle agent, and an anti blush agent.

Oil base stains produce excellent grain print, and some factories like to wait out the dry time to seal, usually from 4 to 24 hours. Sealing over an oil base stain before this suggested dry time will greatly reduce adhesion and failure may occur. The prime use of oil base stain is a one coat finish, and it becomes quite costly to apply a sealer and topcoat over it.

## **NGR Stain**

Non grain alcohol base stains are used mainly as an undercoat for a wiping stain. As an example, if ebony colour was required on Oak, an NGR black stain would be applied first, and then the black wiping stain over it.

NGR stains are not always light, fast and tend to fade when exposed to direct sunlight. However, some new dyes have better qualities than the older ones, and the NGR stains made from them hold their colour. These stains are produced by mixing aniline dye, alcohol, and additives together. The stain is compatible with some lacquers and can be mixed with them to make toners and shaders. NGR stain is not used much by production shops, but is still available if needed. It is also important to be sure the dye stain is acid resistant when used under catalyzed coatings because some NGR's change colour when they come in contact with acid.

## **Aromatic Solvent Base Stain**

This type of stain is the most workable and economical of the stains produced today. They consist of aromatic solvent, (toluene, xylene, cyclosol-53 and cyclosol-63) pigments, anti settle agents, anti blush agents, and resin binders. The stain can be produced in a number of drying and wiping speeds.

## **Slow Wipe Stain**

Is an aromatic wiping stain with a long open time, to enable wiping up to 10 minutes after application. Due to the slowness of this stain, fully erected pieces of furniture can be applied at one time. The open time is long enough to get the stain wiped off without smudging. This stain is applied with a brush, wiping rag, or spray gun. When wiping off, the slowness of the stain assists the pigment to be moved around, producing an even colour without blotching. The speed of this stain is excellent for dark colours where large amounts of pigment have to be used during blending, to get the colour.

## **Regular Wipe Stain**

This aromatic wiping stain has an open time from 5 to 6 minutes. The stain is used for all types of work from large to small pieces. It can be applied by brush or wiping rag, but for best results, a spray gun should be used due to its speed of dry. With a shorter penetration time than slow wipe stains, you should start wiping off before the application is complete. A second worker can start wiping off the first portion sprayed. The stain has a reasonably fast dry time, and can be sealed in about 15 minutes after wiping is finished. The contents of regular wipe stain is much the same as the slow wipe stain, with the exception of a faster aromatic base. The stain comes in a full range of colours.

## **Fast Wipe Stain**

A fast aromatic based stain used mainly for light colours. Fast wipe stain has a penetration time from 20 to 30 seconds before the colour is achieved. This stain dries very fast, and must be worked with considerable speed to prevent blotching and a darkening of the colour. This is a high production stain that must be sprayed on with an immediate follow-up on wiping. On completion of the wipe, this stain can be sealed immediately. Some care must be taken when using this product. Due to the speed of drying, it must be wiped off in the allotted time to prevent a darkening of the colour.

When left on too long, it will be hard to wipe, and a blotchy colour will develop. Should this happen, it can be corrected by wiping down the offending area with a rag soaked in a solvent to remove some of the colour.

Wiping stains are produced with a built-in penetration time. This means that when left on the wood for that amount of time, they penetrate to the colour they were meant to produce. When purchasing stain, keep in mind the time it will take to do the job; how big the job is; the application method, and required manpower to do the wiping.

The faster stains are used for production shops, while the slower ones are more suited for the hobby shop or around the home. When considering a stain purchase, check the label for the ingredients it might contain. Many of the solvents are hazardous to your health, and special care must be taken when using them. The general rule for all stains is to do the work in a well ventilated area, wear gloves, protective clothing, and try to keep the material off your skin.

## **(Spray Only) Stain**

This stain is made with a very fast solvent balance. Spray stains are mainly produced in light colours with low pigment levels or dye colours. The determining factor in a spray stain is the ability to soak in without leaving uneven areas or tide lines on the wood. Spray stain is made with high flash solvents, pigments, dyes, anti settle agents, colour dispersing agents, and on occasion, binder resins.

Spray-only stain is applied with a spray gun and left to dry without wiping. The dry time is very fast, only a few seconds, and the sealer can be applied immediately.

Some skill is required when applying spray stain. It must be applied evenly throughout the entire job to obtain a consistent colour. When the colour is obtained in one or two passes, any additional application will deposit pigment producing a darker colour. When areas are under shot, they will be too light, and the whole job will become uneven.

Once a high level of efficiency is achieved by the sprayer, spray stain can boost production considerably. When spray stain is applied properly, it is hard to tell from a spray-wipe material. A high degree of grain distinction is possible.