

TransTint Liquid Stain Instructions

Directions for using TransTint Liquid Stains.

I-5032

CAUTION: Wear rubber gloves, respirator and goggles during use. Avoid inhaling vapors. Contains organic dyestuff(s), glycol ethers.

FIRST AID: If swallowed, do not induce vomiting. Seek immediate medical attention. For eye contact rinse with flowing water for 15 minutes and seek medical aid. For skin contact, wash material off immediately. If skin irritation persists, contact a physician.

WARNING! Combustible liquid and vapor. Keep away from heat, sparks, and flame. Contents harmful if swallowed.

Keep out of the reach of children.

Product Description

TransTint Dyes are concentrated metallized acid dyes dissolved in a glycol ether carrier. The product is designed to be reduced typically with water, alcohol*, or alcohol/lacquer thinner** and used as a dye stain on bare wood. It can also be added directly to clear finishing materials to make toners. TransTint stain is not a finish and **must** be top coated with a clear finish.

*Methanol, ethanol, denatured alcohol, Bekhol, pure grain liquor (EverClear), or isopropanol.

**50/50 mix of denatured alcohol & lacquer thinner

Mixing TransTint Liquid Dyes

If you are new to using dyes, we recommend that you practice on samples first before practicing on your guitar. In addition, if you have never used dyes as a stain, we recommend that you mix the TransTint with water. Water is inexpensive, non-toxic and non-flammable and has a better open time to apply and wipe the dye

As a Stain - To use TransTint as a stain for bare wood, stir in the concentrate to the solvent of your choice. The ratio of 1-ounce dye to 1 quart of water or solvent is a starting point and is the ratio we use to create the sample images. You can increase or decrease solvent to suit your need. When staining any wood, pre-test to see if wood will accept stain evenly. See "Controlling Uneven Staining" below for uneven staining control. TransTint can also be added to existing water based and solvent based stains (not oil based stains) to adjust color.

If you would like to use less product to mix up sample batches you can use the conversion table below, but keep in mind that you may need to re-adjust the mixture once you make larger amounts.

Liquid Measures of TransTint by VOLUME	Solvent to Use for a 1 oz/1 qt Ratio
16 drops*	1oz/30cc
1 teaspoon 5ml	6oz/160cc
1 tablespoon ½ Fl. Oz. 15ml	16oz/1Pt/480cc
2 tablespoons 1 Fl. Oz. 30ml	32oz/1Qt/960cc

*NOTE – the easiest way to do drops is to poke a hole through the center of the TransTint tip with a small finishing nail. DO NOT CUT THE TIP TO MEASURE DROPS.

Each TransTint bottle contains 2 fluid ounces or 60cc (60ml) of liquid dye. There are 960cc of water in a quart.

Storing Dyes

Unmixed TransTint liquid concentrates have no shelf life. It is recommended to keep the unmixed product in a cool, dry place **out of sunlight** and keep the top on tightly and capped. Some colors may change over time once they are mixed so it's always best to mix up what you will be using right away. If you use dye that has been mixed up and stored for over several months, **always** check the color first before you apply it to your project. Store the mixed dye in a clean plastic or glass container. The colors listed below will gel (thicken) after several months once mixed with water and may not be usable:

TransTint Bright Red #6021

TransTint Blue #6022

Known Incompatibilities

TransTint Liquid Dyes are incompatible* when **added** to the following products:

Oil based varnishes and polyurethanes

Watco Danish Oil, Minwax Wipe on Poly, Minwax Antique Oil, and similar wipe on oil finishes (excluding gels)

All oil-based liquid stains (excluding oil-based gel stains)

Mineral Spirits (as a solvent)

Tung oil and Linseed oil

Tried and True Products

2K (2-component) polyurethane finishes

* You can always apply TransTint to the wood, let dry, and then apply these products.

Cleanup

Dye concentrate, and mixed dye can be cleaned up with water from non-porous surfaces like glass, metal and some plastics. On porous surfaces such as concrete or surfaces where residual stain shows, a chlorine-based cleaner such as Comet with Bleach or Clorox can be used. Always test a small surface first to make sure cleaner will not remove too much color. For hands and skin, a skin safe cleaner called Reduran® Hand Cleaner will remove dye.

Applying TransTint Dyes as a Stain

When applying dyes by hand, slightly different techniques should be used depending on the carrier for the dye.

Applying Water-reduced TransTint Stains --These should be simply mixed in water and are ready for use immediately. We recommend distilled water only if using a very dilute dye - otherwise small, gray dots may appear on the surface of some woods like oak and cherry. The solution does not need to be strained. Since water raises the grain, a pre-grain raising may minimize objectionable grain raise on very open grained woods like mahogany and rosewood. To raise the grain, sponge the wood liberally with water. After drying, sand with the last grit in your sanding schedule. Apply the dye with a rag, brush or sponge, and work it quickly to cover the surface. Get the entire surface wet with dye until it's uniformly saturated then remove the excess dye before the wood starts to dry out. If you get lap marks, you can use a dye moistened bit of cloth or rag to even things out. On complex items try to work on a manageable area.

Spraying water dyes is an easy way to get them on large items. You may choose not to wipe the dye if working with splotch prone woods. Or just spray the item liberally with the dye and then wipe afterwards to blot up dye.

The color of the wood when wet with dye is not necessarily the color when it's finished. To get a good idea of whether the intensity and shade is correct, let the dye completely dry, and then wipe it with mineral spirits or naphtha. However, dyes shift in shade depending on the finish applied, so the only way to be truly accurate is to practice on some samples and finish them with several coats of the finish you'll be using. To make a dye stronger add more dye to the solution. To make a dye weaker, add more water. To lighten up a surface that's already dyed, apply clean water with a clean rag before you apply a finish. You can remove quite a bit of color but never all of it. On wood with very pronounced pores like oak and

ash, you may notice that the pores do not accept dye and remain light. This is a surface tension phenomenon related to the inherently high surface tension of water.

There are a couple of options in dealing with this.

- Apply a pigmented stain over the dye
- Use a paste wood filler to fill and color the pores
- Seal the wood, then use a colored glaze or stain to color the wood

Water dyes can be coated when the wood feels dry to the touch. This can be several hours or 8 hours depending upon weather. If the wood has raised fibers, a light rubbing with maroon steel wool is best, as sandpaper may cut through the sharp edges.

Applying Solvent Reduced (non-water) TransTint Stain -- Alcohol reduced TransTint dyes are dissolved in either methanol, ethanol (denatured alcohol), or 99% Isopropanol. A 50/50 mix of denatured alcohol/lacquer thinner makes a very good NGR (non-grain-raising) type stain.

Solvent reduced stains are best applied with a rag. You can use a brush, but this is only effective on small to mid-sized items. Rather than flooding the dye on, it's easier to control the dye distribution by using less dye. Dab the rag in a shallow pan filled with dye and start wiping it on with the grain of the wood. If you can work quickly enough and apply the dye evenly, you can apply the dye on in any direction, but until you get the hang of this technique, work with the grain. It's better to work with less dye -- using it almost "dry" and then build to the color intensity you want by applying more dye gradually. If you see a drip, try to fix it right away. Because the dye evaporates quickly, drip marks and other mistakes can be hard to blend in later when the dye is dry.

You can lighten the color by applying dye solvent with a rag. You can darken the color by applying more dye but only up to a certain point.

Spraying solvent reduced dyes is fast and produces a uniform color. It is trickier to do because it's hard to get the dye into corners (the vortex created by the compressed air doesn't allow material to get into the corners). We recommend wet brushing the corners first and then immediately coming in with the gun. You can wipe the dye or leave it alone after spraying, but wiping will push the dye into the fibers better, resulting in more depth. A practical alternative is to cut way back on the air pressure to reduce the spray vortex. We recommend the addition of 10% by volume of a 2 lb. cut dewaxed shellac or compatible lacquer when spraying the dye. This allows you to visualize the build of the color and prevents bleeding when applying topcoats, particularly water base finishes.

Solvent reduced dyes are usually dry enough to finish after several hours. They may be pulled up by some finishes that contain alcohol or alcohol type solvents (like glycol ethers) so a light touch is recommended with thin coats if using these finishes (particularly shellac and water base finishes). The use of the binders described above (shellac or lacquer) is also helpful in this situation.

Double Stain Technique

A common technique used in the guitar industry involves applying the dye 2 or even 3 times to maximize figure in woods like curly maple. You can use a single dye color or 2 different colors (a technique widely used by makers such as Suhr and Paul Reed Smith).

If you are using just one color, the technique is easy. Simply make up a small amount (enough to cover the instrument) at 2 times the normal strength. For example, rather than mixing up 1 oz dye in 1-quart water, mix 1 oz dye in 1-pint water. Use this darker version as the first stain, applying it as described above. Wait until it dries, and then sand most it off with the last grit in your sanding schedule (typically 220). On a wood like curly maple you will see the stain still in the

curl and figured areas. Then apply the normal concentration of dye, or 1 oz to 1 qt. If you don't want to waste dye, simply mix an equal part of water into the darker version left over from the first staining.

When you apply 2 different colors, you have unlimited creative effects open to you. The typical application starts with applying the darker colored stain as described, sanding back, then applying a lighter colored stain as the second stain. Or apply the darker stain, sand only enough to remove raised grain then apply the lighter stain. Here's several examples

1. Mix TransTint Golden Brown #6002 at twice the dye to water ratio (1 oz dye to 1-pint water). Allow to dry then sand back with 220 grit. Apply the Golden Brown #6002 again at normal concentration
2. Apply TransTint Dark Mission Brown #6006 as the first stain, mixed at ratio of 1 oz dye to 1-pint water. Allow to dry, then sand back with 220. Apply TransTint Honey Amber #6001 or TransTint Dark Vintage Maple #6009 at normal concentration
3. Apply TransTint Brown Mahogany #6008 at the normal concentration of 1 oz dye to 1 qt water. Allow to dry, then sand with 320 grit, just enough to remove the raised grain. (NOTE: If you use solvent reduced TransTint, the raised grain isn't an issue, so you can skip sanding). Apply TransTint Honey Amber #6001 or TransTint Lemon Yellow #6020 at normal concentration.

Controlling Uneven Staining

When uneven staining occurs, it's known as splotching. This can happen with any wood, but is most prevalent with all softwoods (pines, spruces, firs, etc.) and in the hardwoods; cherry, poplar, maple, aspen, alder and birch. If uneven staining occurs there are several remedies.

1. Spray the stain and do not wipe it.
2. Apply a wash-coat. A wash-coat is a thinned finish that will partially seal the wood but still allow the stain to penetrate.

TransTint Solvent	Glue Size(1)	Shellac(2)	Lacquer (3)	Water base (4)
Lacquer thinner/alcohol	X			
Water		X		X
Alcohol	X			

1. Glue size is white or yellow glue typically thinned 1:1 with water. Fish Glue can also be used.
2. 1/2 - 1-pound cut shellac
3. Sanding sealer or vinyl sealer thinned 2:1 thinner/finish
4. Water based finish thinned 2:1 water/finish

Apply the wash-coat and let it dry completely. Apply it by hand or spray. Sand the wash-coat with 320-400 grit sandpaper, remove the dust, and then apply your stain. This procedure requires experimentation and not all wood species react the same way.

Using TransTint Dye as a Toner

TransTint Dyes can be added to any water or solvent based finish including, shellac, water-based products, solvent lacquers, pre-catalyzed and conversion lacquers, it cannot be added to finishes that are

reduced with mineral spirits like varnish. Always test before using. To test for compatibility, put an ounce of so of the finish in a glass jar. Add 6 drops of TransTint and swirl the contents for 30 seconds. Note the finish that's left on the sides of the jar. If it's transparent and doesn't have some black specks in it – you are good to go. The ratio of concentrate to finish is variable, but best results are with 1/4 - 1/2-ounce concentrate per quart. To add TransTint to solvent based finishes like shellac and lacquers, simply add the required amount (start with about 1/4 to 1/2 oz. per quart) and stir the dye until the finish appears homogenous and clear on the end of a stick. To add to water-based finishes, add a small amount of water to the TransTint stain first (20% by volume is a good starting point), then stir gently for 30 seconds. Let the dye/finish sit for at least 10 minutes before using. If the water base finish is stringy or gels slightly, this indicates an incompatibility and you should switch to another finish.

TIP – Dewaxed shellac is just about the best product that you can add TransTint to and use as a toner. We recommend diluting a 2 lb. cut with 2 parts denatured alcohol and using that a toner base. You can use any finish you like over this diluted shellac/TransTint mix.

Using TransTint Dye in Sunbursts

TransTint Dyes can be added to many products and used as toner as described above but when using TransTint in a sunburst we recommend the following:

- It's highly recommended that you seal the guitar before applying your sunbursts. Typical sealers include dewaxed shellac, vinyl lacquer sealer or thinned water base finish if you like to keep your schedule all water-based. After the sealer is dry, sand it lightly with 320 grit sandpaper to remove the raised fibers and then remove the sanding dust with a rag or tack cloth.
- When using finish as a mixing base for sunbursts, you need to thin it. Typical thinning ratios are 1 parts finish to 2-3 parts thinner. For water base finish use 1 parts finish to 1 parts water.
- Generally, spray the lighter inside area first, then apply the darker colors working from the outside perimeter in. Use light passes and set the spray gun up so it's more like a "mist" than a spray so you avoid drips. You can "check" the depth and intensity of the sunburst by spraying a light wet coat of clear topcoat finish but spray it flat so you avoid drips. When you are satisfied, apply your first coat of clear after allowing the sunbursts coats at least 1-hour dry time. **DO NOT** sand the sunburst or handle it with your hands, you will remove color. If after 1-2 coats of clear finish, you need to adjust or correct the sunburst, you can do so.
- Always apply your topcoats wet enough but not so wet that they drip. Drips will pull color out and are not repairable, you'll have to start over. Water base finish is the most prone to drips, so you may want to spray the guitar flat.
- If you do want to remove the sunburst and start over, do not remove it with solvent or stripper. Allow it to dry overnight and use a card scraper to remove the sunburst. Using solvent can drive color into the grain of the wood and glue lines – resulting in black lines and streaks.