

How to Make Laser Toner Transfer Paper

By Triston J. Taylor

Original process contributed by Cashsale

Primer for this instructional:

" (double quote) = Inch

' (single quote) = Foot (12 Inches)

100% = No Additives

Brand "X" = Any brand

Oz. = U.S. Ounce

ml. = Metric Milliliter

Introduction

Laser print/photo copy transfers can be a pain in short, toner sticks to paper fibers and refuses to come loose causing you agony when you have to go back over your transfer with a pen. The result after transfer is apparently un-professional. Using a method brought to my attention by an individual known only as Cashsale, pro quality laser toner transfer papers can be created from scratch for Hobbyists and Professionals alike.

Note: This is a chemistry project. While the chemicals you will be using in this project are not dangerously acidic, flammable, unstable or otherwise volatile, it is very important that you keep a clean work area, as well as clean work surfaces. Cross contamination of your chemical solutions can produce less than worthy results. Cross contamination is an event where two or more chemical solutions and or substances that were not meant to be mixed, are inadvertently mixed. Always rinse with clean water after cleaning with a soap solution then dry with clean materials!

Read This Document in its entirety before proceeding with production!

What you will need:

- 1 16 Oz. Box of 100% Cornstarch (Brand “X”)



- Oven Capable of 400 degrees Fahrenheit temperature with stove top range/burner



- Countdown timer (Must be capable of at least 20 minute setting)



- Camp Kiwi Heavy Duty Silicone Water Repellant (Can be found in Wal-Mart's Footwear department.)



- Oven Mitt



- Teflon Coated Cookie Sheet (At least 10" wide and 1' long)



- Teflon coated kitchen pot with handle (lid is not used)



- Plastic stirring/serving spoon (Note: Metal Spoons will ruin your Teflon pot.)



- Plastic Spatula (Note: Metal spatulas will ruin your Teflon cookie sheet.)



- Measuring Cup



- 2, 16 Oz. or larger food storage containers with lid



- Paper Towels



- Glossy (preferably brochure type) letter size laser printer paper (8.5" x 11")



- 4" Speedball or brand "X" Soft Rubber Brayer Paint Roller (Can be found in Toys"R"Us Arts & Crafts department.) See Figure to make your own or for reference.



Making the Dextrin

First we must make some Dextrin from scratch. To do this we preheat our oven to 400 degrees Fahrenheit and place the entire box of cornstarch onto our Teflon cookie sheet. Spread the cornstarch out evenly with the spatula.

When the oven has reached the required temperature (400F,) using the oven mitt, you will place the cornstarch covered cookie sheet into the oven and start your timer countdown from twenty minutes. At the end of the twenty minute period you will slightly pull the oven rack supporting the cookie sheet out of the oven with your oven mitt and stir the cornstarch with the spatula to prevent burning and to make sure the cornstarch cooks evenly.

Flatten out the mixture once again, and place it back into the oven. You will repeat the stir and bake process 8 times for a total of 160 minutes baking time. (If you detect any white specs in your Dextrin you should repeat the process until you no longer detect the white specs of cornstarch. But make sure you complete the stir and bake a minimum of 8 times in twenty minute intervals at 400F.)

When you have completed the process you will have in your possession one pound of Dextrin!

Using your oven mitt, place the cookie sheet somewhere secure to cool. When the cookie sheet and Dextrin have cooled down, place the Dextrin into one of your 16 Oz. food containers and secure it with a lid. You should mark the container as "Dextrin".

Dextrin Production Tips

Try not to spill any Dextrin/cornstarch into the oven! You will have to clean any spills out of the oven after it has cooled down to room temperature.

Use pen/pencil/marker and paper to keep track of how many times you have stirred the cornstarch and Dextrin mixture. A dry erase board and marker work best.

If you have a convection oven you will have to see what temperature works best for you. 375F has been reported to be the appropriate setting, but beware the author of this document has not had the opportunity to test or verify this information.

Place the dextrin on the top rack of your oven. Putting the cookie sheet too close to the bottom may burn the dextrin.

Making Dextrin Glue

Now we must produce 16 Oz. of Dextrin glue. This is done by reducing a 10% Dextrin solution. 10% of 16 Oz. is equal to 1.6 Oz. (approximately 3 tablespoons which is 44 ml. metric) Place 3 tablespoons of Dextrin into your kitchen pot. Now we subtract 1.6 Oz. from 16 Oz. to get 14.4 Oz. (approximately 2 Cups.) Place 2 cups of water into our kitchen pot with the Dextrin. Stir the solution with our temperature and Teflon safe mixing spoon and bring to a boil stirring occasionally until most of the water has dissipated (in chemistry this is known as “reducing” a solution.)

The resultant product of this process should be 4 Oz. of Dextrin based glue. Store your product in your empty container and secure it with the lid.

Only yields 4 ounces? We have a 16 Oz. container. I see your point. 16 divided by four is four. So you can repeat the reduction process four times to produce 16 Oz. or multiply your 10% solution ingredients by four. Therefore use 8 cups of water to 12 tablespoons of Dextrin (which is approximately equal to 176 ml.) to produce 16 Oz. of Dextrin based glue. You should note that you will be placing 70 Oz. of 10% Dextrin solution into your pot at this point. 70 Oz. is equal to 2.2 quarts so you will need a 2.5 quart pot or larger to avoid spills from boiling the solution during reduction. In case you are wondering, 70 Oz. is approximately 2 liters. ☺

Dextrin Glue Tip

Find a stick from outside to use as a measuring device. It should be long enough to touch the bottom of your pot while you hold it, without causing your hand to be inside the area of the pot. Fill the pot with 16 Oz. of water. Mark or Notch the water level into the stick. Now when you are wondering if your glue is done you can use your stick to know for sure.

Paper Preparation

Now we must prepare the paper for Dextrin glue application. Clean your cookie sheet with soap and water. Dry with a paper towel. Place a sheet of paper onto the cookie sheet and saturate it lightly with the Kiwi water repellent. Use your roller to spread the Kiwi silicone solution evenly across the paper. Flip the paper over and spray it again; once again use the roller to spread the Kiwi solution.

The paper is properly “saturated” when it appears evenly translucent (see-through) across the entire sheet. With a paper towel or squeegee wipe away excess Kiwi solution, now set the paper on a flat surface to dry (It will not take much time to dry.)

Paper Preparation Tips

You should try to make as many sheets as you anticipate using at this point. Most people will desire two, five, or even ten sheets. You can make as many as you want. Use the whole can of Kiwi and store the paper in a sleeve type folder if you like.

Using a squeegee instead of a paper towel, can increase the use you get out of your can of Kiwi solution.

Applying the Glue

Now we must apply the Dextrin glue to the paper. Clean your roller and cookie sheet with hot soapy water and dry each of them with a paper towel. Place a Kiwi solution prepared sheet of paper on to your cookie sheet. Using whatever method you desire, disperse several drops of Dextrin glue on to the prepared paper and spread evenly with your roller until the roller slightly begins to stick to the paper. Let the paper sit on the tray for 10-15 seconds then remove the paper from the tray and place it in a secure place to dry. After 20-25 minutes your transfer paper is ready for print.

Questions & Answers

Q. Why do you have to go through all this trouble?

A. It's quite simple. Dextrin glue is water soluble which means it loses its grip when water is applied. The Kiwi silicone solution keeps the paper from disfiguring while the Dextrin glue is applied.

Q. Why does your paper crumple slightly upon drying?

A. This is the result of the Dextrin glue drying. When the paper passes through your printer/photo copier it will straighten out.

Q. Why use the whole box of cornstarch?

A. Making dextrin takes too much time.

Printing Tips

Place the paper in your printer tray Dextrin glue side down. Unless your printer/photo copier loads paper on one side and ejects it out of the other side.

Set your laser printer for the darkest print possible.

Transfer Tips

Thoroughly clean and dry the surface you would like to transfer to. Copper can be cleaned quite efficiently with vinegar and salt, and a plastic scrubber. Alternatively, just use very fine grained sand paper.

If you are using an iron instead of a laminator set it to wool, and then allow the iron to heat up fully before applying the transfer.

Shoot for sixty seconds or better “under the iron.”

While soaking your transfer, allow the paper to come free on its own, slight agitation of the water by motion every now and then is generally a good idea.

Credit for this process goes out to Cashsale.

This process was further revised, documented and edited for publication by Triston J. Taylor © 10/20/08

Enjoy your custom manufactured laser toner transfer papers!