

Remove tissue covering before printing



Hot-Clay Fired-On Images™ Laser Printer Image Transfer Kit For Ceramics and Glass

Updated September 2020

Printer Info:

ANY HP or Canon Black *ONLY Laser Printer, Copier or Fax machine will work. HP and Canon are only 2 brands whose *regular toner will work. Printer must **Not** have any ability to print in color. *Do not use off-brand toner.

Printing Images: to print your image onto the **Fired-On Images Transfer Paper**:

1. Set printer for ***plain paper** standard US size **8 ½"x 11"** (*If toner smudges or prints too lightly on the decal paper... change the "**paper type**" preference to "**Heavy Paper**")
2. Run a few sheets of plain paper through the printer to warm up the printer fuser roller.
3. Remove tissue protective covering, if present, before printing.
4. Place transfer paper into the manual feed slot of the printer one sheet at a time.
5. Print your image onto the **glossy side** of the transfer paper

Applying Images



1. Cut out image and soak in warm water for a few minutes

2. Place image on ware and slowly pull backing paper out from underneath

3. Put a paper towel down over image use a "brayer" roller to push out water + bubbles

4. Firing temp depends on surface and/or glaze type

Hints:

- a. Cut image close to edges
- b. Use warm water to soak images
- c. Lift image out of water with backing paper still attached
- d. A soft brayer (roller) is best to push out water, start at center out to edges. Do not use a squeegee!
- e. Firing temperature for ceramics is dependent on surface or glaze type: see p. 6
- f. Images can be fired at any firing rate that is compatible with the glaze/ clay or fusible glass type
- g. Images fire to a lovely sepia brown and can be colorized with traditional painting /glazing techniques
- h. Outside venting system is recommended while film burns away



Firing Images onto Ceramics

Using Hand Applied Glazes/ Pre-Fired Surfaces/ On-Glaze
BEST METHOD!!! Great for intricate or large designs and photos



White backgrounds give best contrast for photographs



Images can be added on anywhere there is glaze



Logo's and signatures can be added to the bottom in the same firing

Hints:

- WORKS with ALL pre-fired Hand Glazed surfaces LOW and HIGH FIRE**
- Most pre-fired glazed surfaces require a cooler transfer/decal fire temp than the original glaze fire. **see chart p 6** for firing temp chart NON-Moving Glazes work best.
- PYOP Studios:** If you want to fire your decal work in with the same low fire 06 glaze kiln load use one of the cone 06 transfer firing compatible glazes on p6. ****Spectrum 799 Majolica White works best at cone 06 decal fire for photographs! Paint 2-3 coats of Spectrum 799 white as an overall base coat then add any brand color (no clear dip) OR Paint 799 white just in areas where you want images, mask the 799 white areas with wax resist, paint whatever brand of colors on as usual and dip in clear (wipe off any clear glaze that gets on wax area). cone 06 Glaze Fire as usual, then attach images and fire AGAIN to cone 06.**
- Images can be placed anywhere there is glaze but do not touch the shelf or stilt
- Smooth flat surfaces are easiest to work with
- For store bought factory-glazed ware see page 4 for transfer/ decal firing temps.

Adding Color Underneath during Glazing/ Majolica Style



1. Paint 2 coats white glaze
Let dry. Trace image on



2. Paint in the lines with colored glaze



3. Fire to cone 06



4. Soak and slide image into place
push out water & bubbles



5. Fire to Cone 010-08

Hints:

- Majolica style glazing (white basecoat & colors on top) also works well with Amaco underglaze chalks and pencils
- Images can be printed directly to Clay Carbon for tracing (carbonless trace paper)
- This method requires no clear glaze but if clear is used check chart page 6 for correct transfer firing temperature.



Adding color underneath during glazing continued:

- D. Low fire (earthenware) clay people...If you want to fire transfers back up to **cone 06** use a basecoat of cone 06 transfer fire compatible glazes on p 6. Spectrum 799 white base is best to fire decal to cone 06!! TEST WITH WITNESS CONES! If kiln is firing hotter than 06...images will fade.
- E. Cone 5/6 and 10 users need to adjust decal size after firing to account for clay shrinkage.
- F. Low fire China Paints and Overglazes or cone 06 compatible glazes can be used to "colorize" images in additional firings.

Firing Images on to Unglazed-BISQUE (Best with earthenware)



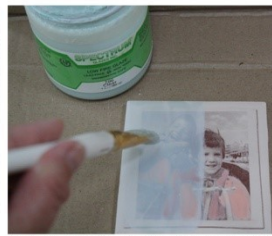
1. Rub bisque with "washable" glue stick then sprinkle with water and smear glue around evenly with fingers



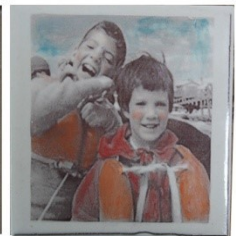
2. Soak and apply image push out bubbles & water let dry fire to cone 020-06



3. Paint in the lines with cone 06 glaze



4. Paint on 2 coats of Spectrum 700 clear fire to cone 06



5. Finished tile

Hints:

- A. Most under-glazes or one step cone 06 glaze colors work well to add color.
- B. **Spectrum 700 Clear is the only clear** works over unglazed bisque images in **cone 06** fire.
- C. Other Options: Use another brand cone 06 clear and decal image will almost disappear during cone 06 firing...use for an under-painting guide or reapply decal and fire to cone 014. D. Test first when using higher fired cone 5-10 clay surfaces

NEW: Firing Images to fully ****Vitrified Smooth Porcelain Clay** Images can now be fired onto (****fully fired**) Porcelain Bisque

For cone 5/6 porcelain

1. Form clay object as desired let dry thoroughly
2. Bisque fire to recommended temp
3. Sand with fine sandpaper to make surface super smooth
4. Fire until fully vitrified (cone 5/6 clay to cone 5)
5. Add images (can be added underneath too ...and can even touch shelf!
6. Fire again to cone 03-cone 6 to make permanent
7. You can re-fire as many times as you want to add glaze colors by painting on top of images. Watered down underglazes or glazes gives a nice watercolor look.
8. Cone 10 porcelain...test for best image firing temp.



Firing Images onto Shop-Bought Factory Glazed Ware:

Transfer Firing Temp depends on ware type (test on small inexpensive pieces first)

Type of Glazed Surface	Transfer Firing Temp
Ceramic: including Wall Tile, Dinnerware and Thick Porcelain Ornaments Dinnerware that does not say Microwave safe printed on bottom	Cone 08-07
Porcelain or Stoneware and Floor Tile (floor tile should say “can be used on floor”)	Cone 02-1

Hints:

- A. If using dinnerware: be sure it has “microwave and oven safe” **printed on the bottom.**
- B. If image fades... fire cooler. If image wipes off... fire hotter.
- C. China Paints or overglazes can be used to add color in additional firings
- D. Porcelain painters see www.fired-on.com “Project” section for a cone **018** tutorial.

Firing Images onto Fusible Glass

The best image clarity and contrast is provided by using white or light-colored opaque glass.

*We have received reports that Oceanside 96 Opal glass may devit with decals. Other types of Oceanside glass are okay and all other brands of Opal glass work well!

- A. Images can be fired to **any** typical glass firing schedule but for best results when making un-capped projects, fire images no hotter than tack or slump temps. 1250°F-1300°F/ 676°C-704°C
- B. Capping is not necessary for permanence, but if desired, fire images on to the underneath layer at a temp hot enough to fire off the film (any temp over 650°F/344°C) and then add cap and fire again (*iridized and the tin-side of float glass may require capping in order to fully fuse*)
- C. Color can be added by using colored glass under the image or after firing by painting in the lines with translucent enamels, overglazes or china paints and firing again.

Firing Images while Lampworking

- A. You can cut up and apply images to encircle glass rods or tubes. Overall patterns work well. Flattening rods or stringers will allow for more surface area for images.
- B. Blown glass pieces or borosilicate glass can be heated in annealing kiln with images applied to burn off the decal film (minimum 800°F/427°C). C. Images may still be powdery so handle carefully.
- D. When using a torch to heat...point it under and around image trying not to apply direct prolonged flame until image is well set.
- E. Encasing the image in clear will ensure better image quality.

Check tutorials in “Project” Section of www.fired-on.com for other techniques including metal enameling.



Troubleshooting

1. **Black Toner smudged when you remove water from the unfired transfer paper:** Run a few plain paper sheets through the printer to heat it up before printing on the transfer paper. Use a brayer (rubber roller) over paper toweling to remove water and bubbles and prevent smudging. ***If toner smudges on the decal paper before you've touched it... change paper preference in printer menu to "Heavy Paper"***
2. **Image has disappeared completely after firing:** Make sure that you are using **ANY HP or Canon BLACK & WHITE ONLY Laser Printers or Multifunction Printer /Copiers or Fax machines** to make your image. Only use authentic **HP or Canon toners**, no substitutes. Make sure to **use only "Fired-On Images™" Brand of Transfer Paper.**
3. **Image wipes off after firing:** Transfer firing too low, try again at a higher temperature. Porcelain Painters check the tutorial on www.fired-on.com for cone 018 temp firing info
4. **Image has faded after firing:** Transfer firing temperature is too hot...use a lower temp.

PYOP and Schools: For cone 06 decal firings: Use base coat of cone 06 **transfer fire compatible glaze. see p. 6. This list will work fine for dark graphics and text but for best results with photographs **paint on 2-3 coats of Spectrum 799 Majolica White** as either a base coat with usual colors on top or place 799 white glaze where you want images, add colors to the rest and use a wax resist over the white areas before dipping in clear. **TEST KILN TEMPERATURE** with witness cones!! If your kiln fires any hotter than true cone 06.... images may fade.

5. **Image has cracks in it:** Small microscopic crackling is normal but if you see large cracks or holes after firing, be sure to handle the film as little as possible by lifting the backing paper out of water bath with film still attached then slide film onto surface gently. Use a rubber roller "brayer" over a paper towel laid on top of the image then remove water and bubbles. Do not stretch the film when applying.
6. **Ware has cracked after firing:**
Stoneware requires a slow fire for both heating up and cooling down.
Porcelain and stoneware must be dry footed...placed directly on kiln shelf
7. **Glazed Surface has bubbled or roughed up during image firing:**
The Glaze you used is not suitable for additional high temperature firings. Best results with a non-moving glaze. Test first! For best with factory glazed tableware be sure that it has a permanent label stating "microwave safe" fired onto bottom.

See the "Project" Section of www.fired-on.com for tutorials and project ideas.

Send us your project images!!! and we will post online and social media. info@Fired-On.com



Transfer Firing Temperature Chart for Hand Applied Glazes

Image firing temp is method and brand specific. Use non-moving glazes!

If images fade too much... fire cooler. If images wipe off ...fire hotter.

For best image contrast use a light-colored glaze.

White is the best background for photographs. (see page 4 chart for factory glazed ware)

All ** glazes work in a cone 06 decal firing with dark graphics and text (no clear dip) but for best results with photos use the Spectrum 700 colored series glazes/ 799 white is great for photos.

Glaze Type and Brand	Glaze firing temp	On-glaze Decal firing temp
Low Fire <u>White and Colored</u> Glazes		
Spectrum 700,300, 400 series (We especially love Spectrum 799- Majolica White!)	06-05	08-06
Amaco GDC Majolica	06	08-06
Mayco Stroke & Coat and **Foundations	06	08-06
Gare Fun Strokes	06	08-06
Duncan Concepts	06	08-06
Colorobbia Bellissimo	06	08-06
Laguna Creatable Colors	06	010-08
Amaco Teachers Palette and LG	06	010-08
Other white and colored Low Fire Brands not listed here	06-05	010-08
Low Fire (cone 06) <u>CLEAR</u> Glaze		
Most Low fire (cone 06) clear glazes including all PYOP clear Dipping Glaze	06-05	014- 012
EXCEPTION **Spectrum 700 Brush-on Clear/ dark text and graphics works well (if using photos fire decal slightly lower than cone 06)	06-05	08-06**
Mid-Range Clear and Colored Glazes		
Duncan Renaissance	5-6	06
Mayco Stoneware	5-6	06
Laguna Versa 5	5-6	06
Amaco Celadon Snow (other colors to be tested)	5-6	06
Coyote Enduro-color Liner glazes	5-6	06-04
ALL Other cone 5-6 glazes	5-6	06-04
Cone 10 Glazes	10	02-1

Check the **PROJECT** page of www.fired-on.com for tutorials