ENGAGING CERAMIC SURFACES

Presenter
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CERAMIC DECAL RESOURCES

Printer Models/Inks that produce ceramic quality decals:

YOU MUST USE A LASER PRINTER.

This is a list of printers I have used, or have heard first hand of their successful use:

➤ HP LaserJet M1212nf MFP -- This is the printer I currently use
➤ HP LaserJet 1022 -- This is a printer I have used in the past
➤ HP laserjet 4L
➤ HP laserjet 5L
➤ HP P1005 laserjet
➤ HP P1006 laserjet

Printers that accept HP LaserJet print cartridge 12A or 85A

This is the website for MSDS sheets. You want cartridges that have at least 30% Iron in the toner:

Decal Paper:

- www.decalpaper.com
- www.beldecal.com
- www.lazertran.com
- www.fired-on.com

Commercial Decal sources:

- www.milestonecalart.com
- www.littlechairprinting.com
- www.ebay.com
- www.harbon.com
- www.olympiadecals.com
- www.instardecals.com
- www.held.co.uk

Firing Temperatures:

In my experience most laser transfer decals fire permanently onto pre-glazed ware at cone 04 when using glazes that mature at cone 6 and higher.

Most glazes that mature at cone 04 will accept laser decals fired to cone 06.

Most commercial decals, decals from easyceramicdecal.com, and most chinapaints and lusters fire to maturity between cone 015 and 017.

Other good resources

➤ http://www.google.com/patents/US20070081838
➤ http://www.printandclay.net/
➤ Image Transfer on Clay – By Paul Andrew Wandless
➤ Ceramics and Print – By Paul Scott
➤ Cerami Transfer Printing – By Kevin Petrie
FAQS

Iron Toner Decals

Q: I printed my decal, and soaked it, and can’t get it to stick to the side of my piece. It even seems to be disintegrating in the water. What did I do wrong?

A: You probably forgot to pull off the protective sheet of tissue paper before you printed. Pull it off and throw it away and remember that you are not the first person, or even the second, to ask me this question!

Q: The decal rubs off after I have fired it. Why?

A: You didn’t fire hot enough. Put it back in the kiln and try going a bit hotter.

Q: The decal is washed out, or disappeared after I fired it. Why?

A: You went too hot. Try going a bit cooler next time... OR...You used the wrong printer. Is it an HP? Does it only print black ink? See my resources page for information on printers that work.

Q: What is a good temperature for firing laser toner decals?

A: If they are applied to glazed earthenware, try firing to cone 09 with the decals. If it doesn’t work, see the questions above. If they are applied to glazed stoneware or porcelain, try firing to cone 04 with the decals. If it doesn’t work, see the questions above.

Q: How do you get black with a laser toner decal?

A: I don’t. You probably saw pictures of my work in process, before the decal was fired on. Laser toner decals only fire to sepia (iron spectrum) colors.

Q: How do you get all the bright colors with a laser toner decal?

A: I don’t. See above.

Q: But your pieces have color decals? How do you do that?

A: I use color ceramic decals, fired to a totally different temperature, sourced from a different source, and NOT printed with a laser printer. See my resourcessheet for where I buy them.
FAQS … CONTINUED

Q: I just got my decal paper from BelDecal or decalpaper.com. Their website says:
(a) they can’t be used for ceramics or fired in a kiln?
(b) they aren’t dishwasher safe?
(c) I can’t figure out the cover coat?
(d) I got the inkjet paper?
(e) I got the wrong color of paper?
(f) It says it works with color?

A:
(a) it works in a kiln.
(b) iron is dishwasher safe when it is fired into a glaze. It’s also food safe. Many clay bodies also have iron in them.
(c) you don’t need the cover coat.
(d) don’t get the inkjet paper. Don’t get an inkjet printer. Get a laser printer. Get laser paper.
(e) the color of paper doesn’t matter. You’re just going to throw it away anyway, as soon as you soak the decal.
(f) it doesn’t. Your color laser printer does not have ceramic pigments in it, thus it will not make ceramic decals. Only the black ink has iron oxide in it.

Q: I looked at the HP website for the MSDS sheet about my toner cartridge. Iron oxide is not listed as an ingredient, but you said it was?

A: Iron isn’t always listed exactly. Sometimes its ferric or ferrous or some other word beginning with Fe, which happens to be the symbol for iron on the periodic table of elements.

Q: I have heard that decals wear off, especially if you put them in the dishwasher. Is this true?

A: The short answer is no, the decals will NOT wear off. Laser toner transfers are made of iron. They work just like iron oxide. If you fire them PROPERLY, they will be fired INTO the glaze. They will NEVER wear off. Commercial decals are fired on top of glazes to slightly lower temperatures than iron toner decals. If you fire them properly, they will not wear off in your lifetime, and probably never. However, if you use a piece with commercial decals EVERY SINGLE DAY, and wash it with a brillo pad EVERY SINGLE DAY, and put it into the dishwasher EVERY SINGLE DAY, you might begin to rub off the decal after several months or years. However, under normal, periodic use and care, even commercial decals, when fired properly, will likely never come off.