



## **Framing Tips for Photographic Papers**

Ink jet printer users may occasionally notice that an ink jet photo framed behind glass has fogged the inside of the glass surface. This fog, which may look like a ghost image, is a film caused by ink solvents that have not completely “cured.” This can happen on any “barrier”-type paper using any type of ink from any manufacturer if you do not allow the print to properly dry before framing. A “barrier” paper is one with coatings designed to prevent ink from being absorbed completely into the paper, thus producing a brighter or glossier image (e.g. RC papers).

Because there has been some confusion about the causes and the solutions for this occurrence, we wanted to clarify the steps to either prevent this from happening or fix the situation if your photos have already been affected.

In order to accelerate the curing process and prevent the ghost image from forming on the glass, the following drying procedure is recommended:

1. After printing, let the print rest for 15 minutes.
2. After 15 minutes, place a sheet of plain paper (not photo paper) on top of the print and let dry for 24 hours. The paper acts like a sponge to absorb the gasses and accelerate the outgassing. (You may stack the prints if you are printing more than one. Be sure to interleave each print with a sheet of plain paper.)
3. After 24 hours, remove the plain paper. You may notice the plain paper is wavy. If it is, repeat the procedure again with a new sheet of paper for another 24 hours, after which the print should be ready for framing. If it is not wavy, this indicates that the solvents in the print should now be completely dry and the print should be ready for framing immediately.

If you already have the ghosting, simply remove and clean the glass, use the procedures outlined above to cure the image, and reframe the print.

### **Questions and Answers**

**Q. What is this phenomenon called?**

A. This has often been referred to as gas ghosting in the printing industry.

**Q. What causes this residue?**

A. Solvents dry at a slower rate than water. Even though the print feels dry to the touch, the solvents have not fully dissipated right away. If a print has been framed before the solvents have completely dried, you may see a residue inside the frame that is caused by the trapped gasses that have been released from the solvents. That is why we recommend an accelerated drying process using paper to absorb the solvents.

- Q. Epson claims their inks and papers are instant dry. Why is more drying necessary?**
- A. The print is dry to the touch upon exiting the printer; the water in the prints fully evaporates in about 15 minutes. The solvents, while dry to the touch, do take longer to cure. This creates a potential problem only when the image is printed on a barrier paper and framed.
- Q. Which papers will exhibit this phenomenon?**
- A. All barrier papers, such as RC photo papers, are most susceptible to this gas ghosting. The barrier yields brighter, glossier prints, but also keeps the solvents from penetrating into the paper base where they can dissipate. Conversely, matte, fine art, watercolor or cotton rag-type papers absorb residual gas and thus do not have this problem.
- Q. I understand this is a problem with your new Ultrachrome ink in the 2200 and 7600?**
- A. It is not a particular problem with Epson's Ultrachrome inks. It can occur with all inks, whether pigment or dye, from any manufacturers.
- Q. I have heard that I need to laminate or seal my prints. Is that correct?**
- A. No, this is not a problem with longevity or durability of the print. To address this problem there is no need to laminate or seal your prints prior to framing. In fact, if you want to laminate your prints, you should still follow the drying procedure outlined above.
- Q. Does this affect the longevity of my prints?**
- A. No.
- Q. Won't this problem ruin my prints?**
- A. No damage is caused to your prints. Only the glass over the print is fogged. All you need to do is take out the glass, wipe it clean, cure the print with a plain sheet of paper and put it back behind the glass.
- Q. I have a framed print with this ghost image. What can I do?**
- A. The glass can be wiped clean and reused. Before reframing the print, place a piece of paper on it for 24 hours to ensure it is cured. Repeat the process with a new piece of paper if the first piece is wavy after 24 hours.
- Q. Will any paper work for curing the print?**
- A. Any low cost plain paper will work. Coated papers should not be used because they may restrict the absorption of the solvents.