



Technical Newsletter: Zebra marks (ink smearing) on thick papers

February 16th, 2007



We are seeing that some customers are complaining about “Zebra” marks or, what is the same, the ink smears on the image as shown below:



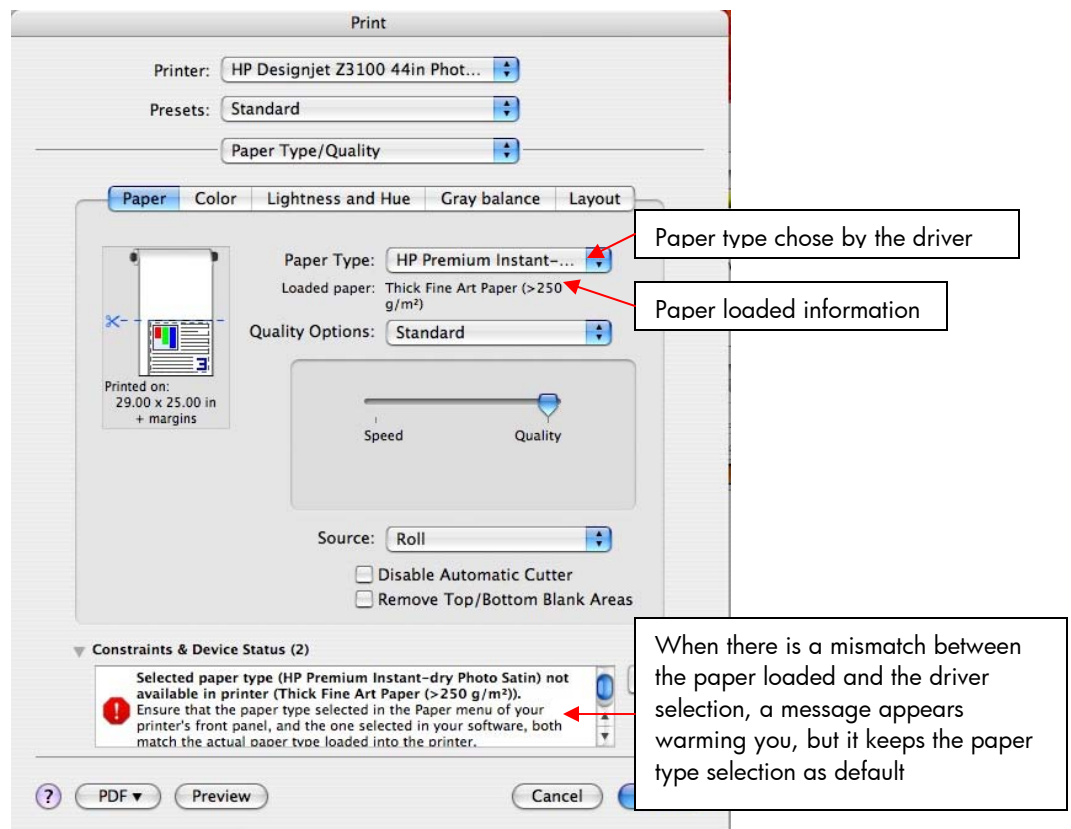
Most of these cases when using **thick** digital fine art **paper** (more than 300gr) although we can also see it in some cases printing with glossy media

These marks are done by the printer carriage. Under certain conditions (we will talk about them in a second) the carriage crashes with the media, scratching the ink from the surface.

Up to day, we have identified different conditions that may lead to this problem. Those are:

A. Wrong selection of the media type in the driver:

- When you select a media type you select a lot of different settings that affects to printing. One of this is the height of the carriage. This is the more relevant setting for our case.
- When you load the media you select the paper you are loading.
- Then you go to the application and you send to print. In the driver settings (not in the application), you have to select again the paper loaded.
- There is a warning in the bottom of the driver that alerts you if the media selected does not match the media selected in the front panel at the time of loading media. However, it is only an advice, and it does not change the default selection.

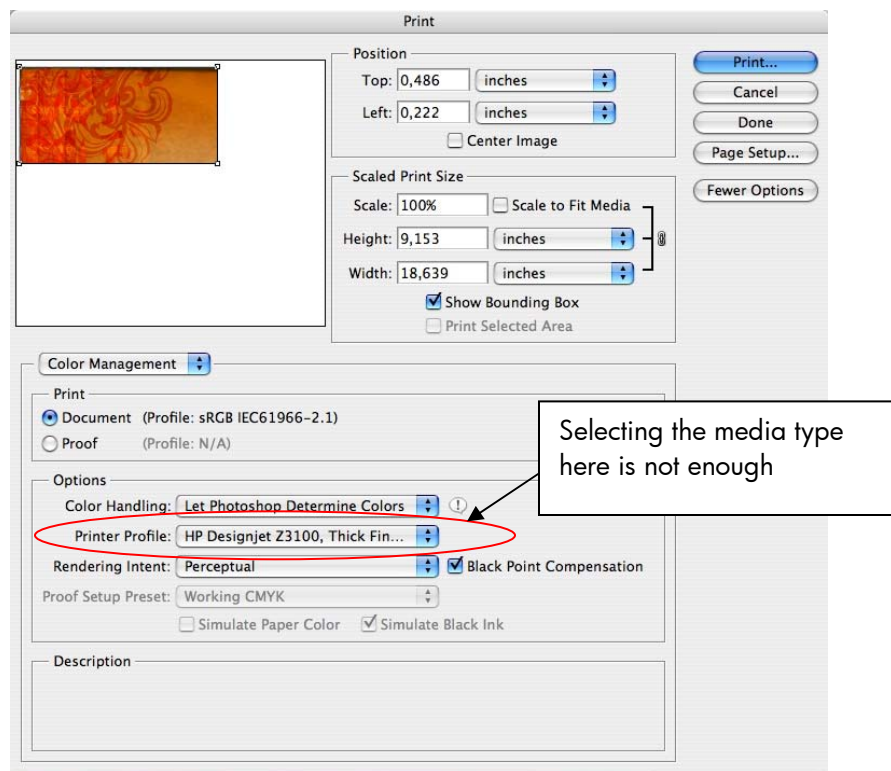


Screenshot correspond to Mac Driver

- By default, the driver selects HP Instant-Dry Gloss paper, a paper with the carriage height in the lower position. This means that if you do not change it, your printer carriage may collide with the paper, creating the “Zebra” marks.

B. Not selecting the right media type in the driver.

- Some customers do not get into the driver to change the media type setting.
- Their perception is that by selecting the paper at the loading time, this should be enough for printing with the right media settings.
- It also has happens that some just select the associated ICC profile in the application, like in Adobe® Photoshop. If you do that, you just select the color but not the rest of settings like paper advance, number of passes or carriage height.



Screenshot correspond to Adobe® Photoshop Mac version

C. Creating a custom media with the carriage height in low position

- When creating a custom paper, you have to select a media type.
- What the printer does is copy all media settings (including carriage height) of the selected media type in your custom profile, therefore, if you select a paper that has a carriage height in low position, your custom media type will always print with the carriage height in low position (some settings can be changed afterwards, but carriage height cannot be)
- If you need to create a custom paper with carriage height in upper position use either any of the Fine Arts papers or Proofing Gloss

D. Fine art paper is usually very sensitive to humidity

- If your printing environment is out of humidity specs for your paper, your paper will tend to create cockle in dry environments, for example with the air conditioning.
 - Humidity > 40%
- Please make sure your printing environment is under the usage specs for your paper

E. Using HP Gloss Enhancer with Digital Fine Arts

- One of the reasons customers uses a glossy type of paper when creating a custom profile is because it will allow them to use the HP Gloss Enhancer with their custom paper.
- For those customers, we are developing a new media profile. We will publish it into our HP Knowledge Center (www.hp.com/go/knowledge_center/djz3100) as soon as possible.