

**Title: Printing on Rough Materials with the Gerber Solara ion™ & Gerber CAT | UV™**

Product: Gerber Solara ion & Gerber CAT | UV

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Summary: This document explains the process of printing on rough materials with the Gerber Solara ion and Gerber CAT | UV and the important precautions that should be taken.

The Gerber Solara ion and Gerber CAT | UV flatbeds can print on many rough materials that previously could not be printed using UV printers, such as flat light fixture covers, slate, ceiling tiles and carpet. Since many of these rough materials have not been tested and qualified by Gerber Scientific Products, it is important to follow the guidelines noted in the application note "Trial Printing on Unqualified Materials" before printing on a new material.

Important Considerations When Printing Rough Materials

If a material is dimensionally stable and less than 1" (25.4 mm) thick, there is a good likelihood the Gerber Solara ion and Gerber CAT | UV can print on it. While the ion and CAT | UV can safely apply ink to most materials, adhesion and colorfastness will vary, so make sure you test your materials and use common sense.

- ◆ Do not try to print using warped material. Rough material that is too uneven can cause an incorrect sensor measurement which could result in the material scraping the platen or contacting the print carriage and cause damage. Rough materials like fixture covers and ceiling tiles must be taped flat. Materials such as carpet should also be taped down on all sides to make sure there is no bending, which can result in head strikes and damage to the printer.
- ◆ Remember that exposure to UV lamps can change the characteristics of materials. Not all brands of the same material will react similarly to UV light. Likewise, materials that are not designed for printing may vary even if they are the same brand.
- ◆ Some porous materials may require double or triple-strike printing to achieve vivid color results. Consult the "Printing Double Strike" Application Note at Gerber's website, www.gspinc.com/applications for directions on double strike printing.
- ◆ When printing on rough materials such as carpet, there can be increased ink castoff during printing, so make sure that in addition to regular cleaning, you clean the print heads after each job printed using rough material.
- ◆ Use care when printing on unqualified materials. Damage to the printer as the result of printing on materials other than those recommended by Gerber is not covered by the Gerber Solara ion and Gerber CAT | UV warranties. See the Gerber web site www.gspinc.com/applications for an up-to-date list of recommended materials.

WARNING: BE AWARE THAT WHEN PRINTING ON CARPET WHICH HAS AN INCONSISTENT HEIGHT DUE TO UNEVEN PILE, INK CAN CURE ON THE PRINT HEADS. CURED INK CAN RUIN THE PRINT HEADS AND DAMAGE THE PRINTER AND WILL NOT BE COVERED UNDER THE GERBER SOLARA ION AND GERBER CAT | UV WARRANTIES.

Helpful Hints for Printing on Rough Materials

Consider the following information when choosing rough materials for printing:

- ◆ Make sure the material is not bent or warped and has no rolled or curled edges.
- ◆ Do not use reflective materials.
- ◆ Remember that ink adhesion and color can vary on materials that were not originally designed for printing, even if they are similar products from the same manufacturer. This is especially true for materials that were not manufactured in controlled environments.
- ◆ Extruded materials can produce inconsistent ink adhesion and color, even within the same sample because of the nature of extruded materials.
- ◆ Materials such as plastic fluorescent light diffusers that have one flat side and one bumpy side should be printed on the flat side.
- ◆ With materials not originally manufactured for printing, a good rule of thumb is to avoid using old materials, as their ink absorption will be uneven.

How to Print on Rough Materials

- 1 Clean the heads. (Repeat every four hours of printing.)
- 2 Prepare the material. (Normalize and clean for best results.)
- 3 Select the material type: Flat
- 4 Load the material.
- 5 Tape the material on all sides, especially if double or triple-strike printing will be used.
- 6 Adjust the UV shield for flat material.
- 7 In your RIP software, select a similar material profile if the profile for the material on which you are printing is not available.
- 8 Send your job to the printer and press RUN JOB to begin printing your job.
- 9 UV lamps will warm-up. (If lamps are not to proper temperature.)
- 10 Job will begin printing.

WARNING: TO GUARD AGAINST DAMAGE TO THE PRINTER AND MATERIAL, MONITOR THE JOB SO THAT YOU CAN QUICKLY STOP PRINTING IF PROBLEMS BECOME APPARENT.