Fade Resistant Process

Of the 4 colors used in process printing, the most commonly used yellow and magenta pigments are degraded by exposure to light, causing prints to become faded with time. This is not normally a problem based on the fact that most printed materials are either of a limited life expectancy or will not face prolonged exposure to light during normal usage. However, for applications where prolonged exposure to light is anticipated, it is strongly recommended that fade resistant yellow and magenta process inks are used to extend the life of the printed piece. For maximum fade resistance, Gans recommends running the FR yellow in the first down unit.

TECHNICAL PERFORMANCE DATA

- **Fade Resistant Item Numbers**
  - Black- A112531  Cyan- A112532
  - Mag- A114775S  Yelo- A114776
  - First Down Fade Resist Yelo- A116383

- **Ink Tack Readings**
  - Black- 13.5  Cyan- 13  Mag- 12  Yelo- 10.5  First Down Fade Resist Yellow- 14.5
  The above tack readings are taken at 1200 RPM, 1 minute, 90° F, Thwing Albert 101 Inkometer.

- **Set Speed**
  - Gans *Fade Resistant* process series rated 350 out of 400 on Gans' internal scale for set speed on a #1 gloss coated sheet. Turn times with this series will not be as fast as our quickest setting process inks, unless aqueous coating is used in-line.

- **Scuff-Resistance**
  - This series rated a 29 out of 40 on Gans' internal scale for scuff resistance. This test is performed on a #1 gloss coated sheet 24 hours after printing. This *Fade Resistant* process series will resist scuffing well on gloss coated papers. Post-processing on matte or dull stocks should be considered, due to the fragile nature of those paper surfaces. Fade Resistant process inks can be made with rub-resistant formulations, on request.

- **Solid Overprint Trapping**
  - At the above solid ink densities on a #1 gloss sheet, Gans *Fade Resistant* process series wet-trapped in-line as follows:
    - Red- 80%  Green-90%  Blue- 69%

- **Dot Gain (TVI) @ 50%, AM 175 Line**
  - At the above ink densities on a #1 gloss sheet, with no AQ, Gans *Fade Resistant* process printed with the following TVI's:
    - Black- 22%  Cyan-20%  Mag-22%  Yelo-20%

- **Stay Open (Skin Time)**
  - Gans *Fade Resistant* process will not begin to develop a skin in the can or the fountain for at least 10 days. Extreme ambient temperatures will affect this stay-open period.

- **Ink Glossiness**
  - At a 60° angle Gans *Fade Resistant* process showed a gloss reading of 67.4 units over 340% ink coverage on a #1 gloss coated sheet, without aqueous coating.

- **Post Processing**
  - This process series is considered finishing friendly and can be UV coated or foil embossed after 48 hours. These inks are considered laser imprintable on uncoated paper, although pre-testing is always required for guaranteed performance.

The pigments required to improve light stability are less transparent and slightly dirtier than standard magenta and yellow pigments. In most cases the difference is not visually noticeable, however, if desired, the yellow and magenta can be printed first down to minimize any potential color shifts.