

Technical Bulletin - Abrasive **Cleaning** Card Usage to Avoid Thermal Print-head Failure



Scope:

Abrasive **Cleaning** Card Usage to Avoid Thermal Print-head Failure

Problem Description/Purpose:

Printhead buildup is the result the media sticking as it passes across the line of thermal heater elements. Sources of buildup are;

- Thermal transfer ribbon backcoats
- Flexographic **printing** inks or varnishes.
- Direct thermal dyes/topcoats.
- Linerless release coatings.
- High **print** energy

Cumulative buildup will have a negative impact on **print** quality and the life of a thermal **print head**. Excessive buildup on the surface of the print-head insulates the heating elements from the media. The result is an overall degradation in **print** quality, and a reduction in the heat dissipation from the **print head**.

This can cause excessive thermal stress on the heating elements, leading to premature **head** failure.

Customers will try to compensate for weaker **print** by turning up the **print** energy. This will add to the thermal stress to the print-head.

It is also common for a print-head to be replaced because isopropyl alcohol alone will not effectively remove buildup.

An abrasive **cleaning** card is an effective tool for removing buildup and restoring printhead performance. These **cleaning** cards utilize a plastic film coated with very fine aluminum oxide particles designed to scrape away buildup.

Solution/Action Plan:

INSTRUCTIONS: for using the abrasive cleaning card:

1. Shut off power to the printer, allowing the platen roller to spin freely. (For the 4400 printer leave power on to engage printhead against platen).
2. Remove ribbon and/or labels.

3. Insert blue **cleaning** strip p.n. GEZ400STB with smooth shiny side against platen roller until 1 inch extends out of printer (cut down 4 inch card for narrow print-heads).
4. Close print-head and pull **cleaning** strip out of printer.
5. **Clean** the surface of the print-head with isopropyl alcohol.
6. Discard the abrasive **cleaning** card

Note, the abrasive card is not a replacement for isopropyl alcohol cards, or a swab soaked with isopropyl alcohol. Isopropyl alcohol is still recommended for **cleaning** and removing paper dust, adhesive, and other debris from print-heads and platen rollers.

Note: Isopropyl alcohol should not be used on the platen roller if the printer is designed for liner-less **printing**. Take care not to get alcohol on the platen roller.

Abrasive cleaning cards can damage the Print-head if used frequently.

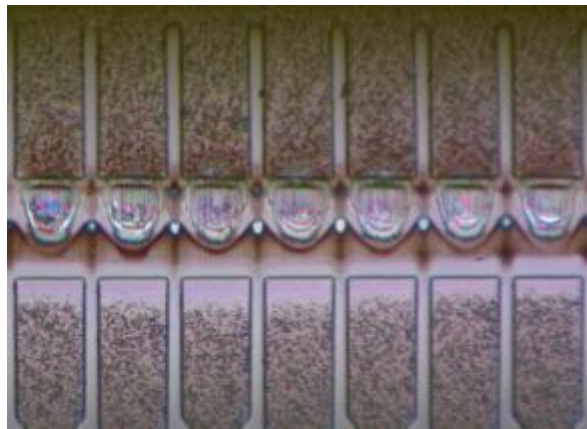
Isopropyl alcohol should be used every 6000 inches (152 meters) of label stock.

(One roll is normally 6,000 inches)

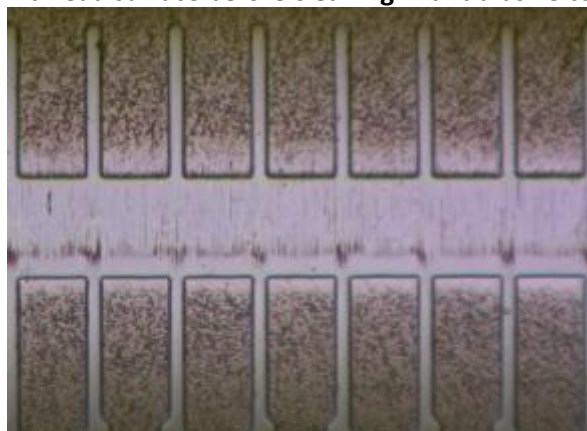
Abrasive cleaning cards should only be used every 60,000 inches (1524 meters) of label stock.

(10 rolls are normally equal to 60,000 inches)

Overuse of abrasive cleaning cards can void the print-head warranty.



Print-head surface before **cleaning** with abrasive card



Print-head surface after **cleaning** with abrasive card