

What is Pink Stain?

Pink Stain is the by-product of a microorganism that has entered into the seat cushion through the seams, clinging to the foam, and has the ability to spread out to the visible vinyl surface. The stain color is dictated by whatever the fungi is eating, in this case, the plasticizers in the vinyl.

What is the Cause of Pink Stain?

Four elements are required for the mildew to begin its' growth cycle that ultimately results in pink stain: Spores, Food Source, Warmth and Moisture.

Dirt carried by wind or rain contains mildew spores or seeds that can penetrate down in the seat through the seams to the foam cushion. The spores start in the foam and feed on the plasticizers in the vinyl. The warm climate mixed with moisture from the water creates a utopia for mold and mildew growth. Cases reported are more frequent in geographic locations with high humidity.

Best Practices to Fight Pink Stain

If starting fresh, the following suggestions are recommended to prohibit mold and mildew growth:

- Base or Plywood – should be marine grade, treated for mildew and rot resistance*
- Polyurethane Foam – treated to inhibit fungal growth* and should pass all standard anti-fungal and anti-bacterial standards, such as ASTM G-21 (CFFA – 120), ASTM E1428 and AATCC 147 (CFFA – 300).
 - **D21PAC – Dri Fast Firm #70 2" x 24" x 72"** that meets Antibacterial Standard AATCC 147 and/or ISO 20743:2007 plus Antifungal Standard AATCC 30*
 - **AMF14 and AMF12** – AMF- Anti-microbial Sew Foam is a polyurethane foam treated with agents that inhibit spore growth to pass all typical anti-fungal/anti-bacterial standards. These sew foams will offer another layer of possible protection against bacteria and mold penetrating from the inside when reupholstering marine seats or outdoor cushions.
- Vinyl – marine grade quality treated with antifungal and antibacterial additives* to retard mildew and bacterial growth and pink mildew by-products.
 - Seats must be constructed so that the foam cushion does not become saturated with water and must dry out quickly if it does get wet.
- Sewing Thread – The following threads are suggested:
 - Guardian Anti-Microbial with Microban® Thread*
 - Solarfix® PTFE Thread
 - Sunguard Polyester Thread
- Needle Size - #20 for 69 (3 ply) thread, or #22 for 92 (4 ply) thread.
 - Seams should be water tight
- Venting – upholstery as well as substructure, should be vented to allow any trapped moisture to escape and dissipate.

***Please note that while all components may be treated with biocide (regardless of the amount), it is still not 100% guaranteed to avoid Pink Staining.**

For the Boat Owner:

- Keep vinyl seats clean and clear of dirt and debris. Follow instructions for care and cleaning on the specific vinyl used on your seats.
- Keep seats dry whenever possible. Refrain from leaving wet towels, swim suits, and life vests on the seats for any extended period of time.
- Remove seats, if possible, or prop them up to prevent moisture from setting in.
- Open all cabinets and doors to promote air circulation.
- Use a boat cover whenever possible, with air ventilation, to limit moisture.

For the Fabricator:

- Communicate - Discuss the issue of pink staining before starting any boat interior job.
- Educate your customer - Explain what it is and why it occurs. Have pictures on hand so customer can identify if it does develop. Most importantly, clarify that ink staining is not always avoidable.
- Put it in writing - List the precautions you are taking to protect their boat interior.
- Protect yourself - Give a list of care and cleaning suggestions to your customer.

Quick fix Solutions if Pink Stain has Set In

Below is a list of suggestions that were made by fabricators. These are merely suggestions; use at your own risk.

- Pink Away - <http://www.pink-away.com/>
- Acne medicine – all types were listed
- Spray Dye
- Westley's Bleche White
- Paste solution made of bleach and baking soda

The information listed above was compiled to the best of our knowledge. While we've done our best to explain the facts and best practices behind Pink Staining, there is no guarantee that it won't occur, even on seats that have been properly assembled. Miami Corp makes no claim that these methods will work or are suitable to your application.