TECHNICAL BULLETIN

IMPROPER CHEMICAL LEVELS CAN LEAD TO DAMAGED VINYL LINERS - KNOW THE FACTS!

Research by both chemical suppliers and vinyl manufacturer's have confirmed that wrinkles in swimming pool liners develop due to excessive water absorption.

According to CGT (Canadian General Tower), a leading manufacturer of swimming pool vinyl, testing has shown that high levels of sanitizers, whether bromine or chlorine, are the primary cause behind excessive water absorption. If sanitizers are allowed to remain high, water can be absorbed into the vinyl. pH and cyanuric acid stabilizer levels are important secondary factors because they control the activity of the sanitizer. Therefore, controlling sanitizer, pH, and stabilizer levels are the top priority when maintaining proper water chemistry, which is essential, if vinyl liner wrinkling is to be avoided.

It is important to know that water will not unreasonably absorb into a vinyl liner if the chemicals are kept in the recommended range. Wrinkles that develop due to excessive water absorption are not reversible.

EFFECTS OF AUTOCOVERS AND SALT GENERATORS ON VINYL LINERS

Pools that operate using salt generators and/or automatic pool covers have been known to be more susceptible to liner wrinkling.

There is no single "ideal" setting for a salt generator. Every pool requires a unique amount of sanitizer and that range will vary throughout the swimming season depending on the units performance and maintenance, air temperature, precipitation, bather load, etc. Salt generators must be monitored and adjusted on a regular basis to ensure all chemical levels are kept in an acceptable range.

Automatic pool covers left on a pool for extended periods can have high concentrations of airborne chemical build up between the water and the cover, which can cause wrinkling. The CFFA (Chemical Fabrics & Film Association, Inc.) recommends that no pool be covered after chemical application until the chemicals dissipate and return to normal recommended operating levels. The CFFA also recommends that a covered pool should be opened and allowed to vent chemicals every 24 hours.

Included are several photos that show the types of damage that can be caused by misuse of chemicals and excessive water absorption.

*Please note that damage from chemical misuse and excessive water absorption is not covered under warranty.

For more information on vinyl liner care and maintenance, plus other technical bulletins visit www.cgtpoolliners.com/support/technical-bulletins or www.glipoolproducts.com/linercare.

GLI LINER CARE & MAINTENANCE

Thank you for choosing GLI Pool Products for your new Inground Vinyl Liner! We have developed this bulletin to help educate you on the proper care and maintenance of your new vinyl liner. We are confident that if you follow these specific guidelines you will continue to enjoy the hassle-free experience that we intend for each and every customer.

WATER CHEMISTRY

Proper water balance is the single most important factor to maximizing the life and appearance of any swimming pool. We recommend consulting with your pool professional for water testing and purchasing a quality home test kit. When liner issues arise, most problems can be traced back to misuse of chemicals, either too much or too little. The CFFA (Chemical Fabrics & Film Association, Inc.) along with leading vinyl supplier CGT (Canadian General Tower) recommend the following ranges for basic water chemistry.

Recommended water testing resources: www.aquachek.com & www.taylortechnologies.com.

pH LEVELS: Maintain pH between 7.2 to 7.6 ppm

pH is the measure of acidity/basicity level in your pool. A proper pH level (7.2 to 7.6) not only increases human comfort, but also helps chlorine clean your pool better because chlorine needs a certain pH level to kill bacteria and algae.

- Low pH (below 7.0 ppm) is a major cause of dimensional instability that can cause vinyl to absorb water and develop wrinkles.

FREE CHLORINE: Maintain free chlorine between 1.5 and 2.5 ppm

Free Chlorine is a sanitizer that keeps your pool water safe and free of germs and bacteria and must be monitored and replenished. Free chlorine levels should be maintained between 1.5 and 2.5 ppm

- If free chlorine drifts below 1.5 ppm, algae and bacterial growth can take hold more easily and may cause staining of your vinyl liner
- If free chlorine is maintained greater than 2.5 ppm, liner fading and wrinkling may occur. This problem can be further aggravated if accompanied by pH levels that fall below 7.0.

TOTAL ALKALINITY: Maintain alkalinity level between 80 to 120 ppm

Your water test kit or your dealer's test will show a total alkalinity reading. Simply put, it's the ability of your pool water to counteract changes in the pH level.

- Low alkalinity can cause a "pH bounce", meaning the pH level will fluctuate in and out of the acceptable range.

CALICIUM HARDNESS: Maintain minimum Calcium level of 200 ppm

Calcium levels should be kept at a minimum level of 200 ppm to avoid corrosive conditions.

- Calcium levels over 500 ppm may cause problems such as cloudy water or scaling on the liner surface.

STABILIZER: Maintain Stabilizer level between 20 to 50 ppm.

Stabilizer or Conditioner (cyanuric acid), is used as a means of helping protect the chlorine from being destroyed by the sun's ultra-violet rays. This helps the chlorine last longer and reduces consumption.

- A level less than 50 ppm combined with a pH level of less than 7.0 and/or a chlorine level higher than 2.5 can cause the liner to absorb water and develop wrinkles.

For more information on vinyl liner care and maintenance, plus other technical bulletins visit www.cgtpoolliners.com/support/technical-bulletins.

LINER CARE

- Allow each chemical to circulate throughout the pool before adding a second chemical. Certain combinations of chemicals at a high concentration can cause bleaching of the liner.
- Never cover pool if free chlorine levels are above 2.5 ppm or wrinkling may occur.
- If you employ an automatic pool cover or a solar blanket, it is recommended that the cover be removed or retracted on a daily basis to allow chlorine concentration build up to dissipate.
- Avoid the use of any abrasive cleaning agents or cleaning aids.
- Vacuum and clean the pool with a cleaner designed for vinyl lined pools.

CLOSING THE POOL

- Test the pool water and balance.
- Never close a pool without circulating the pool water for several hours after the final additions of chemicals. Chlorine may settle in the deep end and bleach the liner if not allowed to blend with the pool water.
- Clean and vacuum the pool from top to bottom.
- Adjust water level to the recommended level.
- Use proper fitting winter pool cover, tightly seal around the perimeter of the pool to prevent debris from getting into pool.