

# CARE INSTRUCTIONS

## Reinforced Membranes for Swimming Pools



### 1 THE WATER

**Do not use well water or water from unknown origin to fill the pool.**

If the water does not come from the drinking water public network or from a guaranteed origin, it is very likely that it contains dissolved metals such as iron, copper or manganese. These minerals can react with chemicals and permanently stain the membrane.



### 2 THE WATER TEMPERATURE

**The water temperature should not exceed 32 degrees Celsius.**

**If the value is too high:**

The effectiveness of the disinfectant (chlorine or other) decreases considerably; A higher concentration of chlorine will be required, the consequence of which will be the risk of discoloration of the liner; wrinkles may appear on the surface of the liner.

The International Swimming Federation (FINA) sets a temperature between 25 and 28 degrees for sports use in the water. For recreational use, a temperature between 26 and 30 degrees represents an ideal value.

**Caution:** covered and / or heated pools can accumulate a large amount of heat in the water, exceeding the maximum recommended temperature limit. This circumstance will cause irreparable damage to the pool liner.



### 3 THE ALKALINITY

**It is necessary to keep the TAC between 100 ppm and 175 ppm.**

TAC (total alkalinity) represents the ability of water to neutralize acids. A TAC of less than 100 ppm makes the water corrosive and will cause irreversible damage to the membrane. It is recommended to monitor this value weekly, particularly when it has rained because rain tends to throw the TAC out of balance. In addition, a balanced TAC prevents the pH from fluctuating and getting out of control.



### 4 THE PH

**The recommended PH value is between 7.0 and 7.6.**

**If the value is less than 7.0:**

Metals in contact with water will rust, causing staining of the membrane; the material ages faster and wrinkles may appear on the surface of the liner.

**If the PH value is higher than 7.6:**

The disinfectant (whether chlorine or another) decomposes very quickly, which considerably reduces its effectiveness; Lime deposits will appear on the surface of the liner.



## 5 CHLORINE

The recommended free chlorine level is:

- 1 to 3 ppm for stabilized chlorine (powders or tablets)
- 0.3 to 1.5 ppm for non-stabilized chlorine (liquid chlorine or produced by a salt chlorinator)

If the free chlorine concentration is too low:

Disinfection is not carried out correctly and the quality of the water deteriorates; favors the formation of biofilm on the surface of the membrane, which can cause staining.

If the free chlorine concentration is too high:

Wrinkles are formed on the surface of the liner; the material becomes discolored and bleached; the membrane ages faster; swimming pool users' skin is irritated.

**Caution with salt chlorination:** chlorine produced by a salt chlorinator is more aggressive than stabilized chlorine in tablet or powder. To soften it add 30 ppm of chlorine stabilizer (isocyanuric acid) at the beginning of the season. If your salt chlorinator does not have an automatic controller that regulates the chlorine level, you will need to control it manually with the help of a meter.

In swimming pools disinfected with bromine, the level should be 1 to 2 mg/l and the pH between 7 and 8. Excess bromine will cause the membrane to turn brown.

In swimming pools disinfected with ozone, the residual ozone in the water must be kept below 0.01 mg/l.



## 6 CHEMICAL PRODUCTS

Never put chemicals in direct contact with the PVC membrane.

Use only non-abrasive cleaners specifically designed for swimming pools. Industrial or domestic cleaning products should not be used (such as powdered detergents, stain removers, degreaser, etc.) as they are not approved for cleaning the pool and will damage the membrane.

The proper and safe way to use any chemical in the pool is to introduce it into the skimmer with the filtration system running periodically.

In the case of a chemical in powder, granules or liquid you want to introduce directly into the pool, it must be previously dissolved in a bucket with water and poured into different areas of the pool, always with the filtration system running in order to avoid its concentration in a certain area.

**Caution:** Avoid using floating dispensers, they tend to remain immobile too long in the same area and the high concentration of chlorine will bleach the membrane. In the same way, in no case chlorinated products shall stay in the skimmers with the filtration system stopped for a long period of time (in winter for example). The high concentration of chlorine will stain the membrane irreversibly, in addition to forming wrinkles in the material.

Do not use chemicals that contain copper

Chemicals containing Copper and disinfection systems based on Copper ionization are not compatible with PVC liners. Copper causes stains on the surface of the material.

Look carefully at the label for the composition of chemicals, particularly algacides that contain copper sulfate. Use algacides with ammonium base which are also better for the care of hair and skin.

**Caution:** Sometimes the public water itself already contains traces of copper, particularly if it circulates in old pipes. The level of copper in the water should not exceed 0.02 mg/l. If this is the case, a metal sequestrant must be added to reduce this level.



## 7 THE CLEANING EQUIPMENT

Do not use abrasive utensils

In order not to damage the surface of the membrane, cleaning should only be carried out with soft sponges, soft cloths and soft brushes. Never use abrasive cleaning tools such as bristle brushes, cleaning pads or steel wool. High pressure cleaners can also harm the membrane surface.



## 8 **CLEANING**

### **Always keep the waterline clean.**

The waterline is the most attractive area of the pool. Dirty elements in water, whether from chemical origin (such as sun creams, oils, cosmetics, etc.) or from organic origin (such as pollen, leaves, etc.) float and concentrate at the waterline. They settle on the walls and create unsightly stains on the PVC liner. These spots are intensified by the action of the sun. It is essential to keep the membrane clean at the waterline with products specifically designed for the cleaning of PVC liners.

#### **Avoid lime deposits**

Depending on the level of lime in the water of your area, lime deposits may appear on the surface of the membrane. If your water is very hard, you need to use a lime sequestrant to lower the hardness of the water.



## 9 **EMPTYING THE WATER**

### **Protect the pool from environmental contamination in summer and winter.**

The pools are designed to be full of water. It is not recommended to leave them empty for long periods of time because the balance of forces in the structure (the weight of the water versus the pressure of the ground) is altered.

**In summer:** keep the water level adequate for a good functioning of the hydraulic circuit.

**In winter:** with the pool out of service, the water level can go up (due to rain) or decrease. If the pool is in a frosty region, the water level must be lowered below the skimmers and the hydraulic circuit must be drained. Floats must be placed in the water to absorb the increase in water volume caused by the ice.

Consult with your specialist about the adequate hibernation treatment for your pool. Always use products compatible with PVC liners.

Empty or partially empty pools must be protected by a cover to avoid stains on the liner caused by pollution and the aggression of solar radiation. In general, it is advisable to use a cover all year round, thus avoiding water contamination with external elements such as leaves, pollen, atmospheric pollution, etc.



## 10 **THE AUTOMATIC EQUIPMENTS**

### **Check with a manual meter that the values of the equipment are correct.**

Even if your pool is equipped with automatic dosing devices, they will need to be checked and calibrated regularly so that their reading matches the actual values of the components present in the water. It will be necessary to carry out a regular manual check of TAC, PH and Chlorine to ensure that the actual values coincide with the values indicated by the automatic equipment.



## 11 **INCOMPATIBLE MATERIALS**

### **Avoid the contact of membrane with certain materials.**

Certain components can cause staining and damage to the PVC membrane. The materials listed below must not come into direct contact with the liner: polystyrene, bitumen, tar, paints or rubber (cables, irrigation pipes, some shoe and boot soles, etc.)



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