

Subject: Bleaching of Pool Liner Colour by Chlorine

Blue vinyl swimming pool liners are susceptible to bleaching or loss of colour if exposed to high concentrations of chlorine. If recommended concentrations are adhered to, slight bleaching and fading occurs gradually over a period of several years. This is the case because of the limitations imposed by the pigments available to match the desired blue shades and applies regardless of vinyl manufacturer.

Direct contact of the liner with trichloroisocyanurate stabilized chlorine can result in an almost total bleaching of colour in a time period as short as 6 to 24 hours. The reasons are a high available chlorine content of 90%, the low solubility or rate of dissipation of the granules or pucks, as well as the extremely low pH produced in the contact areas.

The immediate effects of other types of chlorine such as dichlorisocyanurate, calcium hypochlorite, sodium hypochlorite (liquid chlorine) are not as rapid and severe, as long as they are not mixed with other chemicals, during or shortly after addition to the pool. Solutions of the above chlorines can be applied directly to the liner for several hours to bleach stains without adversely affecting the liners.

If the concentrations of the above chlorines are allowed to remain higher than the recommended levels of 5.0 ppm for superchlorination or 10.0 ppm for shocking, for long periods of time, gradual bleaching of most blue liners will occur.

Liner colours, other than medium shade blue, that have almost total resistance to chlorine bleaching are: white, turquoise, light blue, grey and dark royal blue.

The print patterns pool liners have excellent resistance to bleaching in most cases. The exceptions are medium blue prints which can only be obtained with the inclusion of a bleachable blue pigment.