



LIFESAVING SOCIETY®

The Lifeguarding Experts

Color Does Make a Difference

Does the color of your pool bottom affect the ability of your lifeguards to see a person on the bottom of the pool? Research from the Lifesaving Society has answered this question with a definitive "Yes". This research was conducted as part of the Lifesaving Society Aquatic Safety Management Services.

The Society conducted tests with a manikin that simulates a small caucasian child with white skin color and a blue bathing suit. We used the lifeguards in the test facilities to evaluate how well they could see the manikin against the pool bottom. The color of the pool bottom ranged from white through 3 shades of light to medium blue. The tests showed very clearly that the white background provided the best result. On the blue backgrounds, it was significantly more difficult to see the manikin. As the color became darker, the ability of the lifeguards to see or recognize the manikin was reduced.

Another factor that further reduced visibility was the water depth. Darker bottom colors with increased depth were directly correlated with reduced visibility of the manikin. In deep water, the blue bottom colors significantly compromised the ability of lifeguards to see the manikin.

As part of the testing process, the Lifesaving Society assisted the staff at the test facilities to develop lifeguarding strategies to effectively lifeguard their facility and manage the impact of the pool color. This was accomplished through a consultation process that is designed to help the facilities analyze their lifeguard positioning and staffing requirements and use this information to establish their lifeguard practices.

The Lifesaving Society recommends that facility owners consider how color affects the ability of lifeguards to see and recognize someone under the water surface in a swimming pool and incorporate this into their lifeguarding systems. This also relates to the needs of other persons who may be supervising a swimmer such as a parent watching a child in a hotel swimming pool. Based on our research the recommended choice for the color of the pool bottom and sides should be white. The white bottom and sides provides the best visibility for a lifeguard to see and recognize a swimmer under the water or on the bottom of a swimming pool. This is critical for the lifeguard or other observers to be able to determine if the swimmer needs to be rescued and prevent a drowning or other injury.

Different intensities of blue were the only colors other than white included in the Lifesaving Society tests. It was clear that they affected the lifeguard's ability to lifeguard effectively. More testing is required to evaluate the impact of other colors such as cream or beige to determine how they affect visibility. Until this testing occurs, the Lifesaving Society recommends that new facilities or facilities undergoing renovations choose white for the sides and bottom of their swimming pools.

The Alberta Building Code regulates the color that can be used for the sides and bottom of a swimming pool. Alberta Building Code Provision - ABC 1997 7.3.3.3 states: “Except for the lane, depth and orientation markers, the sides and bottom of a swimming pool shall be light in color.” When building or renovating pools, interpretation of this standard is left up to the architect and the local building inspector. The code does not provide any guidance about what qualifies as “light in color”.

In the Society’s role as the authority in aquatic standards and safety, the Society provides expert guidance to Government and other organizations to assist them in setting and interpreting standards and regulations for public safety. The Society was consulted by Alberta Municipal Affairs and the Safety Codes Council for input to proposed technical changes to the Alberta Building Code. As part of our input, the Society’s position on the color of pool surfaces was submitted to the Safety Codes Council.

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