Pool Plaster Guide

This guide informs and educates the reader about the nature and properties of plaster and water, and the bearing they have upon each other.

AquaThority
POOLS & SPAS, LLC

the clear choice in pool care

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plaster needs

Introduction

The purpose of this Pool Plaster Guide is to inform and educate the reader about the nature of plaster and water, and the bearing they have upon each other.

While a plaster pool surface is superior in finish and performance as compared to all other pool surfaces, it has its own set of rules which need to be known and followed to ensure an enduring and serviceable lifespan which should exceed 10 years and, in many cases, last as many as 15 years or more.

The greatest influence on the welfare and lifespan of a plaster surface is the pool owner's diligence in monitoring and controlling the pool's water chemistry. What follows are plaster basics. Additional information on plaster care and water chemistry can be found at our web site: *www.aquathority.com.*

Nature of Water

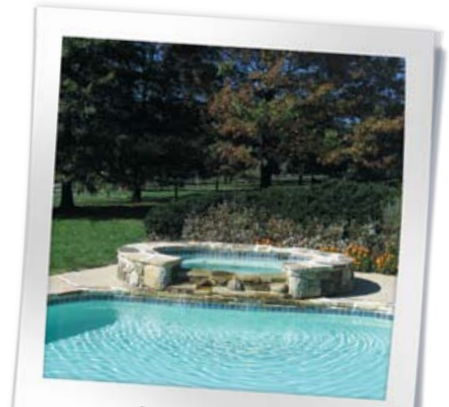
Water has an appetite which is affected by its temperature among other variables. If water is fed the proper types and amounts of food (balancing products) it will become full and satisfied (stable). Conversely, if the water is deprived or starved, it will become hungry and aggressively destructive as it leeches its food from the plaster.

It's essential to understand that pool water which is unbalanced and unstable will destroy a pool's plaster finish whereas pool water which is balanced and stable will preserve a plaster's finish.

Importance of Water to Plaster

Like water, plaster is affected by the elements of its setting. And because it must be constantly submerged in water to thrive and survive, water has an enormous bearing upon its welfare. Essentially, properly balanced water protects the plaster finish from the ill-effects of its environment such as the sun, weather and debris: all of which can cause plaster to dry-out, stain, and deteriorate.

So whether it's an old pool or a freshly plastered pool, properly balanced water is paramount to the health and endurance of its plaster finish. More information on caring for a newly plastered pool can be found in AquaThority's New Plaster Guide.



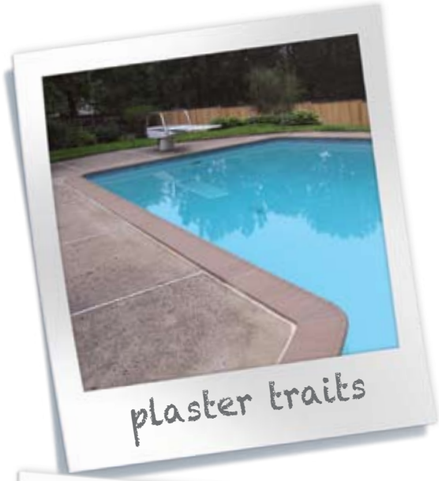
water balance

Nature of Plaster

Because plastered pools and spas are, and need to be, constantly submerged in water they are affected by the chemistry of the water more than any other factor or variable. This constant interactive relationship between the mineral content of the plaster surface and the mineral content of the pool water produces a reaction.

Over time, this reaction will have an impact on the condition and life of the plaster surface: in some cases these reactions cause minor cosmetic changes in the plaster, however, in many cases these reactions can have a more corrosive effect, even causing plaster to deteriorate.

While plaster is the best material for the surface of a swimming pool because it's smooth to the touch of feet and hands, durable with a long-life expectancy, resistant to impact and abrasion, and readily repaired, cleaned and maintained among other features; it's not a perfect material as it has inherent traits which have a bearing upon its finish.



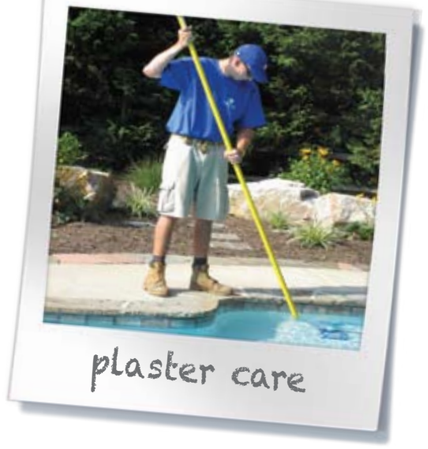
plaster traits

Plaster is not flawless because it is:

- compounded from raw mined minerals (cement, marble dust, and aggregates)
- applied over materials (plaster or concrete) which are inconsistent in surface, shape and condition
- hand-troweled to as smooth a surface as possible but will still exhibit inconsistencies in its finish
- not purely white and inherently inconsistent in color tone

Plaster can:

- look mottled (blotchy) and streaky
- have small cracks known as "checks", "shrinkage" or "crazed cracking" which pose no threat to its life
- be susceptible to stains, discoloration, and spotting caused by foreign impurities, water chemistry, etc.
- etch, roughen and deteriorate if not properly balanced



plaster care

Plaster Care

Because the greatest bearing upon a plaster's finish is the water chemistry, suffice to say the biggest factor in achieving such is the pool owner's diligence in keeping the water balanced. And although daunting at first, you need not be a chemist to keep your pool water balanced.

Water chemistry includes 2 primary categories: balanced water and sanitized water. Balanced water relates to the chemical and mineral elements of the pool water. Sanitized water relates to the cleanliness and sanitary condition of the pool water. Detailed information on these matters and more are presented in AquaThority's Pool Water Chemistry Guide.

Types of Plaster

White Plaster: *white marble aggregate (sand) and white cement (ratio of 2/1) and water.*

Applied at a thickness of about a half-inch (.5”), white plaster has been and remains the standard and most popular finish for pools and spas. Its simple combination of white cement, white marble aggregate and water make it an economical choice as well as a desirable surface for swimmers because of its smooth and durable surface.

Colored Plaster: *white marble aggregate and white cement (ratio of 2/1), pigment, and water.*

By adding a pigment to the white sand, white cement and water during the mixing process, plaster can be colored. It’s important to understand the unpredictable and flawed traits of colored plaster: mottling, unevenness in color, variations in shading and density, pigment stains, and the inevitable fading over time will occur with colored plaster.

Quartz Plaster: *quartz aggregate and white cement (ratio of 2/1), pigment, if applicable, and water.*

Created by replacing the white sand used in white plaster with a quartz aggregate, quartz plaster exhibits the aggregate’s flecks of colored quartz, polymers and ceramics throughout its half-inch (.5”) thick finish. Offering a range of colors with its aggregates as well as pigmentation (if applicable), quartz plaster is a more durable surface due to its quartz content. Like colored plaster, pigmented quartz plaster will be inconsistent in color and change in appearance over time.

Pebble Plaster: *pebble aggregate and white cement (ratio of 2/1), pigment, if applicable, and water.*

Pebble plaster is made by replacing the white sand used in white plaster with a pebble aggregate (smooth river pebbles of varying colors and sizes) giving the plaster a pebble finish throughout. Offering a broad range of colors with its pebbles as well as pigmentation (if applicable), the three-quarter-inch (.75”) finish is a more durable surface due to the pebbles. Like colored plaster, pigmented pebble plaster will be inconsistent in color and change in appearance over time.

Bead Plaster: *glass bead aggregate and white cement (ratio of 2/1), pigment, if applicable, and water.*

Bead plaster is made by replacing the white sand used in white plaster with a glass bead aggregate (rounded glass beads of varying colors and sizes) giving the plaster a glass bead finish throughout. Offering a broad range of colors with its glass beads as well as pigmentation (if applicable), the three-quarter-inch (.75”) thick finish is a more durable surface due to the glass beads. Like colored plaster, pigmented bead plaster will be inconsistent in color and change in appearance over time.

NOTE: for more plaster information please visit National Plasterers Council’s website (npconline.com).

Additional Informative Guides

Please reference these additional informative AquaThority guides at www.aquathority.com or request a hardcopy from our office.

- New Plaster Guide
- Pool Renovation Guide
- Pool Safety Guide
- Pool Water Chemistry Guide

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