Product Data Sheet

3M Colorquartz™ Ceramic-Coated Crystals

3M Colorquartz Ceramic-Coated Crystals are coated quartz particles designed for use in a variety of architectural applications including swimming pool finishes and epoxy seamless flooring. Each crystal has been ceramic coated by a 3M process that bonds inorganic pigments to the quartz, creating color that has been proven to last in harsh environments. The following technical information should be considered representative or typical only.

Typical Physical Properties and Product Performance Characteristics			
<u>Property</u>	Measuring Standards & Conditions	Results	
Hardness	Moh's Mineral Scale	6.5 - 7	
Bulk Density S-Grade	ASTM C 29	104 - 108 lb./ft3 (packed)	
Bulk Density T-Grade	ASTM C 29	94 – 98 lb./ft ³ (packed)	
Moisture Content	ASTM C 566	Does not exceed 0.5%	
Color	TM-ALL-PROD-012, CieLab, D65, 10°Observer	Controlled to Standard	

Chemical Resistance Data **Liquid immersion was for 18 hours					
Acid Resistance	Concentration(%)	Reaction	Alkaline Resistance	Concentration (%)	Reaction
Nitric Acid	70	None	Trisodium Phosphate	40	None
Hydrochloric Acid	37	None	Sodium Carbonate	40	None
Acetic Acid	100	None	Ammonium Hydroxide	28	None
Sulfuric Acid	96	None	Industrial Detergent	1 part to 2 parts water	None
Chromic Acid	82	None			
Aluminum Sulfate (90 hrs immersion)	25	None			
Trichloro-s-triazenetrione	Saturated	None			

AVAILABLE IN TWO GRADE SIZES AND A WIDE RANGE OF COLORS

S-Grade

Sieve specifications	*Typical, not specified	Colors Available		
ASTM D 451	U.S. Sieve % Retained 20 0-2 30 7-14* 40 46-73* 50 15-35* 70 0-6* -70 0-1	2063 Red 2163 Plum 2233 Coral Rose 3033 Green 3143 Cayman Green	4013 Brown 5013 Black 6023 Tan 6073 Buff 6233 Peach	7043 Grey 7133 Smoke 8043 Blue 9073 White

T-Grade

Sieve specifica	tions		Colors Available		
Method ASTM D 451	<u>U.S. Sie</u> 12 -40	ve % Retained 0-5 0-2	2065 Red 3145 Cayman Green	5015 Black 8045 Blue	9075 White

For additional health and safety information see the Material Safety Data Sheet.

Important Notice
3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

Limitation of Remedies And Liability

If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR

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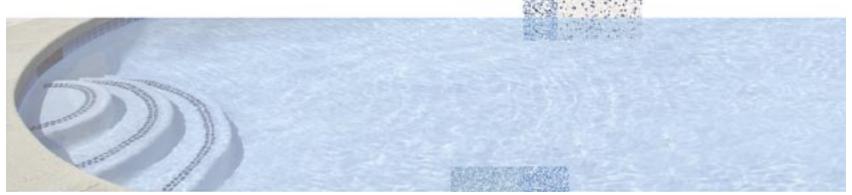
If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including, but not limited to, contract, negligence, warranty, or strict liability.

3M Industrial Mineral Products Division

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Use 3M[™] Colorquartz[™] Crystals and enjoy color, durability and enduring beauty.

What makes a pool beautiful? Is it the way it catches the light? The way it draws friends and family to it? The way it gives you a special place to relax? With the help of Colorquartz Crystals, your pool can provide all these things. These crystals add more than just spectacular color to your pool's appearance; they add durability to help extend the life of your pool's finish.

The crystals in your pool surface come from a name you know and trust. We build quality into every one of the millions of crystals that will be in your pool's finish. So there is no need to worry about color fading, and the smooth crystals are gentle on your feet. For over a decade, Colorquartz Crystals have given thousands of pool owners uncompromised performance.

Feature	Benefit
Made from quartz	Outlasts traditional plaster finishes and will stand up to years of use, even in harsh conditions.
Coated with inorganic pigments and kiln-fired	Color resists fading, even when exposed to pool chemicals and acid washings. And it resists stains and is easier to clean.
Backed by a 3M warranty*	Gives you peace of mind that your pool finish will provide you with vivid color for years to come.
Available in a variety of colors and blend levels	You can create a look that is uniquely yours and influence the appearance of your pool's water color.
From 3M	3M has been using the same ceramic-coating technology for 75 years. You can trust 3M to provide quality, long-lasting color.

^{*}See warranty for details.

Quality beneath the surface.

3M[™] Colorquartz[™] Crystals are created by melding the beauty of nature with the power of technology. We start with quartz, one of the world's hardest minerals, coat it with an inorganic pigment and kiln-fire it to create a crystal that is as tough as it is beautiful. The vivid color resists bleeding and fading even when exposed to harsh sunlight, strong pool chemicals and acid washing.

Colorquartz Crystals are added to your pool plaster mix, replacing some of the soft marble or sand. The colored crystals are randomly distributed throughout the plaster surface, so each pool will have its own unique appearance. A variety of blend levels are available to help you achieve the look and durability you want. Talk to your pool professional to determine the combination that is right for you.

Color that's right.

Colorquartz Crystals are an important tool in helping you achieve an overall watercolor for your pool. Yet, many other factors contribute to the final appearance of your pool water: the reflection of the blue sky, the shape and depth of the pool itself, the pool's natural surroundings, time of day and even weather. While there's no exact method of creating water color appearance, the best way to achieve the look you desire is to consult with an experienced pool builder.

Not just a finish.

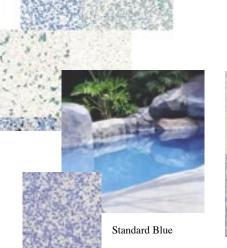
When you add Colorquartz Crystals to your pool finish, you will be able to immediately enjoy the color and added durability. But that's just the start. Over time, a natural curing process takes place and more of the Crystals are exposed. Like a fine wine that ages, your pool finish improves over time. Colorquartz Crystals are not just a finish, but a beautiful beginning.

For more information on Colorquartz Crystals, call 1-800-447-2914 (option 3), or e-mail us at colorquartz@3M.com or visit www.3M.com/pools.



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Smoke

White

Cayman Green

Cayman Green/
Blue

Standard Finishes

Standard level provides a balance of durability and a lasting colored finish.

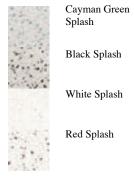




Premium Finishes

Premium level offers the most dramatic impact on the appearance of your pool's water color while providing maximum surface durability.





Premium Splash Finishes

Premium splash level combines the strength of quartz with a more uniform surface finish for a more traditional look.