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COLOR RESISTANCE TO UV LIGHTING

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MEGANITE®

TECHNICAL BULLETINS

MEGANITE® COLOR RESISTANCE TO UV LIGHTING

DOCUMENT PURPOSE

This document offers an overview of potential color performance of MEGANITE® Acrylic Solid Surface based on accelerated Weather-Ometer® testing performance in accordance with ASTM G155. This test method is widely used in solid surface and other surfacing materials for outdoor colorfastness behaviors.

Color stability is often a primary concern when evaluating a material exposed in outdoor environments. UV rays are the primary cause of discoloration along with moisture. ASTM G155 simulates light, moisture and temperature in a controlled environment over a period. From this test, some of MEGANITE colors exhibit good color stability and some do not weather well. In our tests, we chose the most popular and in trend colors and not all Meganite's 1000+ colors are tested. The findings in this technical bulletin are intended to provide general information for certain color groups.

Color changes under outdoor lighting generally depending on the base color of the material. Comparing to vivid, dark and saturated colors, the change is less obvious on light or subdued colors. Our findings can provide educational information about color performance affected by UV in an accelerator testing environment. But the results may not equally or adequately reflect the final install environments or structural designs. Ultimately, it is the end users' determination if these color characteristics are acceptable.

MEGANITE® has been a specified supplier of color pastes to building materials and resin industries for outdoor and marine applications for over 40 years and we have been making solid surface for over 20 years. Our team of colorists know color well and only use high quality and stable color pigments.

DUE TO THE COLOR CHANGING PROPERTIES UNDER EXPOSURE TO SUNLIGHT, THE FOLLOWING PAGES SHOWS THE POTENTIAL COLOR PERFORMANCE FOR YOUR REVIEW.

BELOW ARE SOME OF THE MOST POPULAR COLOR TONES USED BY DESIGNERS AND HOMEOWNERS GLOBALLY.

NOT ALL MEGANITE COLORS ARE LISTED HERE.

COLOR CHANGE UNDER UV CAN BE SIMILAR FOR DIFFERENT DESIGNS WITH SIMILAR COLORS TONES.

Solid Color

Solid colors can be measured by a color spectrometer. By comparing the figures before and after performing the UV resistance test in a computer, the difference is defined as △E.

△E less than 2 display exceptional colorfastness properties.
△E more than 5 are with obvious color changes.

Color Group	Color Name & Number	△E after 1,000 Hours Exposure
WHITE - Solid white	033A Snow White	△E < 2
RED - Bright solid ruby red	088A Fire	△E > 5
GREY - Light solid grey	056A Grey	△E < 2
BLACK - Absolute solid black	019A Jet Black	△E > 5

Non-Solid Colors

Non-solid color is not possible to be measured by a color spectrometer. Color spectrometer can only detect one color at a time. Non-solid colors have a combination of several colors and color chips. Therefore, color changes are measured by eye inspection using grey scales and observed in a controlled light box with even lighting while comparing to non-UV exposed samples (control samples). Below comments are from trained professional color experts' feedbacks.

Color Group	Color Name & Number	After 1,000 Hours Exposure
WHITE - White color tone with large white chips	630A Antique White Granite	Obvious Color Change
WHITE - White color tone with large greyish white chips	701A Blanca Granite	Obvious Color Change
WHITE - Light white color tone with clear chips	905A Rice Pudding	Slight Color Change
BEIGE - Light sandy color tone with small light white and brown chips	312AR Canvas Mist	Slight Color Change
BEIGE - Beige sandy color tone with small light white and brown chips	266AR Wheat Mist	Slight Color Change
BEIGE - Beige color tone with large dark grey and white chips	729A Rocky Road Granite	Barely Seen Color Change
BEIGE - Beige tone with large white and dark red chips	627AR Rye Granite	Barely Seen Color Change
BLUE - Dark ocean blue tone with large white and black chips	736A Indigo Granite	Slight Color Change
GREY - Medium grey tone with small black chips	219AR Silver Mist	Slight Color Change
GREY - Dark concrete grey tone with small black and light chips	520A Smokey Mountain	Slight Color Change
GREY - Classic grey tone with large medium grey chips	800A Winter Boulder	Slight Color Change
DARK BROWN - Dark brown tone with large golden and black chips	819SAR Goldrush Gemstone	Obvious Color Change
BLACK - Absolute black tone with small sparkles	508SA Starry Starry Night	Obvious Color Change

IF YOU HAVE QUESTIONS, PLEASE CONTACT MEGANITE SOLID SURFACE REPRESENTATIVES, AUTHORIZED FABRICATORS, DISTRIBUTORS OR EMAIL US AT INFO@MEGANITE.COM.
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