

The qualities of

# CERAM-A-STAR® Expressions

Revolutionary print system adding depth and dimension to your finish

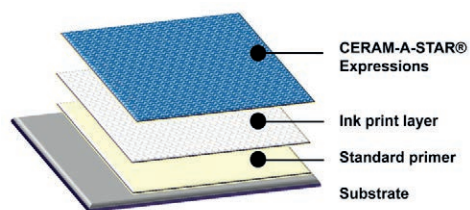
Product information and specifications for CERAM-A-STAR Expressions high-performance silicone-modified polyester finishes

## Product Information

CERAM-A-STAR Expressions technology engages the senses with the visual appeal of a print and the texture that adds depth and dimension. Expressions allows for endless creativity to design looks that are truly unique and will differentiate.

CERAM-A-STAR Expressions is a tough and durable exterior finish based on the superior performance of CERAM-A-STAR 1050, the recognized industry leader of silicone-modified polyester paint systems in North America. This unique chemistry, using AkzoNobel proprietary resins and special additives, creates a textured coating surface that is not only durable, but easy to apply, fabricate and install.

Expressions can be used, with stunning effect, to create innovative appearances or convincing imitations of natural materials, such as wood, slate or granite.



CERAM-A-STAR Expressions is applied over an innovative ink layer and one of our High Performance Primers. The result is exceptional durability, superior resistance to moisture and UV exposure, and excellent flexibility and abrasion resistance.

## CERAM-A-STAR® Expressions COOL CHEMISTRY® Series

CERAM-A-STAR Expressions is only available in our COOL CHEMISTRY Series, which contains ceramic infrared reflective pigments. These special pigments are designed to reflect infrared energy while still absorbing visible light energy, thus appearing as the same color yet staying much cooler. The result is a sustainable building material that can lower air conditioning costs, reduce peak energy demand, and help to mitigate urban heat island effects. All colors meet North America's Cool Roofing requirements.

## General System Information

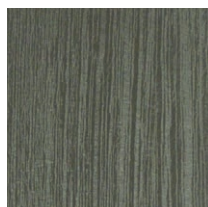
CERAM-A-STAR Expressions is approved for use on Hot-Dipped Galvanized (HDG), Galvalume®, Galfan® and Aluminum substrates.

CERAM-A-STAR Expressions is a factory-applied finish that is administered through roll coating to properly cleaned and pre-treated first-quality substrates, and then oven-baked to cure. It is a three-layer system, composed of a topcoat and ink layers over one of AkzoNobel's High Performance Primers.

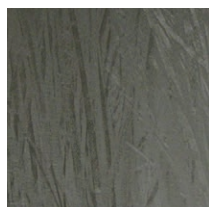
## Field Performance

CERAM-A-STAR Expressions is one component of a total paint system. When applied in accordance with specifications the following field performance can be expected:

	Walls	Roofs
<b>Film Integrity</b>	40 years	40 years
<b>Chalk</b>	No more than #8 for 30 years	No more than #6 for 30 years
<b>Fade</b>	No more than 5 ΔE Hunter units for 30 years	No more than 7 ΔE Hunter units for 30 years



CERAM-A-STAR Expressions wood-grain print pattern



CERAM-A-STAR Expressions sawgrass print pattern

## Application Characteristics

<b>Film Thickness</b>	Topside finish: Primer (dry) = 0.20 – 0.30 mils; Ink layer – film determined by print type; Topcoat (dry) = 1.0 – 1.1 mils; Reverse side finish: Primer (dry) = 0.15 – 0.25 mils; Pigmented backer (dry) = 0.30 – 0.40 mils. Total DFT for system = 1.20 – 1.40 mils. All measurements per ASTM D 5796.
<b>Topside Color</b>	Controlled to the Master Standard by an approved Color Difference Meter or Spectrophotometer, and by visual match under daylight and horizon light of a Macbeth Daylight Booth per ASTM D 1729.

## Physical Properties

<b>Specular Gloss</b>	Determined per ASTM D 523 at a glossmeter angle of 60°. CERAM-A-STAR Expressions systems are typically 2 – 4% when reading areas with texture.
<b>Pencil Hardness</b>	Minimum pencil hardness, per ASTM D 3363, is "F".
<b>Solvent Resistance</b>	Passes minimum of 100 double rubs of a MEK soaked cloth, per ASTM D 5402.
<b>Cross-Hatch Adhesion</b>	No paint removal with Scotch #610 cellophane tape after cross-scoring with eleven horizontal and eleven vertical lines 1 mm apart, per ASTM D 3359.
<b>Impact Resistance</b>	No visible paint removal with Scotch #610 cellophane tape after direct and reverse impact of 80-inch pounds, using 5/8" steel ball on a Gardner Impact Tester, per ASTM D 2794.
<b>T-Bend Adhesion</b>	Per ASTM D 4145, no loss of adhesion when taped with Scotch #610 cellophane tape when subjected to a 2T-Bend.

## Testing Data

<b>Humidity Resistance</b>	No blistering, cracking, peeling, loss of gloss or softening of the finish after 1000 hours of exposure to 100% humidity at 100°F ± 5°F, per ASTM D 2247.
<b>Cleveland Condensing</b>	No blistering, rusting or loss of adhesion of the finish after 1000 hours of exposure at 120°F, per ASTM D 4585.
<b>Water Immersion Resistance</b>	Samples immersed in distilled water at 100°F per ASTM D 870 will exhibit no loss of gloss, blistering, cracking, color change or softening of finish after 500 hours.
<b>Salt Spray Resistance</b>	Samples diagonally scored and subjected to 5% neutral salt spray for 1000 hours, per ASTM B 117, then taped 1 hour after removal from the test cabinet with Scotch #610 cellophane tape, exhibit no blistering, no loss of adhesion and scribe creep no greater than 1/8".
<b>Chemical Resistance</b>	No significant color change after 24 hours exposure to 10% solutions of hydrochloric and sulfuric acids, per ASTM D 1308, Procedure 7.2 (spot test).
<b>Kesternich Test</b>	No significant color change after 10 cycles in a SO <sub>2</sub> chamber, per ASTM G 87.
<b>Accelerated Weathering</b>	5 Hunter ΔE maximum color change, and at least #8 chalk rating after 2000 hours exposure, per ASTM G 151 and G 154 using UVA-340 bulbs.
<b>Abrasion Resistance</b>	Per ASTM D 968, Method A, CERAM-A-STAR Expressions passes 35 +/- 5 liters/mil of falling sand.
<b>Flame Spread Rating</b>	CERAM-A-STAR Expressions displays a flame spread classification of A (Class 1) when tested in accordance with ASTM E 84.

# AkzoNobel

[coilcoatings.akzonobel.com/us](http://coilcoatings.akzonobel.com/us)

## About AkzoNobel

Since 1792, we've been supplying the innovative paints and coatings that help to color people's lives and protect what matters most. Our world class portfolio of brands – including Dulux, International, Sikkens and Interpon – is trusted by customers around the globe. We're active in more than 150 countries and use our expertise to sustain and enhance the fabric of everyday life. Because we believe every surface is an opportunity. It's what you'd expect from a pioneering and long-established paints company that's dedicated to providing sustainable solutions and preserving the best of what we have today – while creating an even better tomorrow. Let's paint the future together.

For more information please visit  
[www.akzonobel.com](http://www.akzonobel.com).

© 2024 Akzo Nobel N.V. All rights reserved.

Revision Date: February 2021

CERAM-A-STAR and COOL CHEMISTRY are registered trademarks of an Akzo Nobel company. Galvalume is an internationally recognized trademark of BIEC International Inc. Galfan is a registered trademark of Galfan Technology Centre, Inc.