

PermaTherm

Insulation Innovation

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CERAMASTAR 950

PROPERTIES

New CERAM-A-STAR®950 color system technology is the latest achievement resulting from decades of Akzo Nobel long life coatings research.

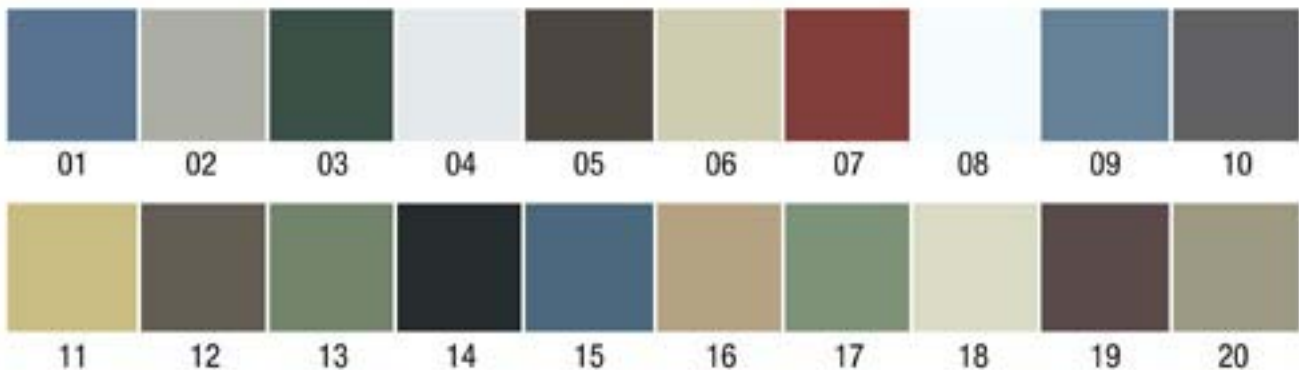
Weathering performance of CERAM-A-STAR®950 coatings redefines long established standards for silicone protected polyester finishes used to decorate and protect metal panels for exterior wall and roof construction.

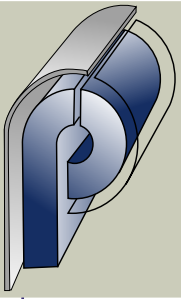
Specially tested and select ceramic/inorganic pigment combinations give highly durable color to CERAM-A-STAR®950 color systems. Properly combined with proprietary polymers, these high performance pigments provide optimum resistance to color and appearance changes typically caused by normal environmental exposure.

CERAM-A-STAR®950 colors have real time test fence resistance to chalk erosion and color fade and are construction project proven.

Coil coater and fabricator friendly CERAM-A-STAR®950 finishes are available in a wide range of design-compatible colors guaranteed to meet performance and specification requirements well into the twenty-first century.

- | | | |
|--------------------------------|-------------------------------------|-------------------------------|
| 01. Hawaiian Blue SL3G23802 | 08. USDA White SW3K 25505 "950 U" | 15. Ocean Blue SL3G 23837 |
| 02. Ash Gray SA3G23796 | 09. Dresden Blue SL3G 24499 | 16. Sahara Tan ST3G 23790 |
| 03. Emerald Green SG3G 24449 | 10. Charcoal SA3G 24157 | 17. Patina Green SG3G 24638 |
| 04. Polar White SW3G 23789 | 11. Sand Gold SD3G 23791 | 18. Egyptian White SW3G 24045 |
| 05. Burnished Slate SS3G 23804 | 12. Architectural Bronze SS3G 24431 | 19. Cocoa Brown SN3G 23803 |
| 06. Lightstone SH3G 23793 | 13. Colony Green SG3G 23794 | 20. Desert Beige ST3G 23798 |
| 07. Country Red SR3G 23792 | 14. Ebony Black SB3G 23795 | |





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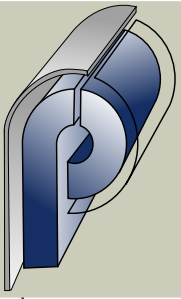
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Film Properties Test Methods & Descriptions **CERAM-A-STAR®950**

SUBSTRATE Hot Dipped Galvanized Galfan & Galvalume Aluminum

Dry Film Thickness: ASTM ¹ D1400/D1005/D4138 (NCCA ² 11-13,14,15)	0.20-0.25 mils primer 0.70-0.90 mils topcoat	0.20-0.25 mils primer 0.70-0.90 mils topcoat
PHYSICAL PROPERTIES		
60° Specular Gloss: ASTM D523 ³ ASTM D3363 (NCCA 11-12)	25-40%	25-40% ³
Pencil Hardness: Eagle Turquoise Pencil	"F"-Minimum	"F"-Minimum
Flexibility: **T-Bend NCAA 11-9 ASTM D522 180° bend **Mandrel Bend arnd 1/8" mandrel	2T - No Tape-Off	2T - No Tape-Off
Adhesion: ASTM D3359 (NCCA 11-5) Reverse Impact Cross Hatch	No Tape Off	No Tape Off
Reverse Impact: ASTM D2794 (NCCA 11-6) 5/8" Ball Impact in inch-pounds = 2000 x decimal fraction of steel thickness in inches	No Adhesion Loss	No Adhesion Loss
ABUSE TOLERANCE		
Abrasion Resistance: ASTM D968, Liters to expose **Falling Sand 5/32" area of substrats Based on topside to backer **Transit contact in transit after painting	30 Liters per mil of film	30 Liters per mil of film
Mortar Resistance: AAMA ⁸ 605.2 (24 Hour Pat Test)	Acceptable	Acceptable
Detergent Resistance: ASTM D2248 3%@100°F, 72 Hours	No Effect	No Effect
	No Effect	No Effect
RESISTANCE TO CORROSION, CHEMICALS & POLLUTION		
Acid Pollutants: Per ASTM D1308, Proc. 7.2: **10% Muriatic Acid 15 Minutes **20% Sulfuric Acid 24 Hours **70% Nitric Acid Vapors AAMA 605.2 (30 Minutes) **Kesternich Test SO ₂ ,CyclicTest,2 Liters	No Effect No Effect <5dE ⁶ Color Change 10 cycles ⁵	No Effect No Effect <5dE ⁶ Color Change 10 cycles ⁵



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Alkali Resistance:

*Sodium Hydroxide
ASTM D1308 10%, 25% (1 Hour)

Salt Fog: ASTM B117 5% Salt Fog @ 95°F

Humidity: ASTM D2247 100% Relative
Humidity @ 100°F

Minimal Effect
1000 Hours⁴

1500 Hours⁷

Minimal Effect
3000 Hours⁴

1500 Hours⁷

WEATHERING PROPERTIES

Accelerated Weathering: ASTM G23 Weatherometer
ASTM D2244 Color
ASTM D659 Chalk

EMMAQUA Testing: Per ASTM D4141

Exterior Weathering:

**Florida Exposure ASTM D2244 Color
**5 Years @ 45° South ASTM D659 Chalk
**Film Erosion AAMA 605.2

2000 Hours
<5 dE⁶ Color Change
Maximum #8

Superior Results
Superior Results
<5 dE⁶ Color Change
Maximum #8

Less than 20% film loss

2000 Hours
<5 dE⁶ Color Change
Maximum #8

Superior Results
Superior Results
<5 dE Color Change
Maximum #8

Less than 20% film loss

(Footnotes)

- ¹ American Society for Testing and Materials
- ² National Coil Coaters Association
- ³ Higher and lower glosses available upon request.
- ⁴ Less than 1/16" creep from scribe. No more than few #8 blisters.
- ⁵ No objectionable color change.
- ⁶ Hunter d (delta) E color difference units.
- ⁷ No more than few #8 blisters.
- ⁸ American Architectural Manufacturers Association

For more information contact PermaTherm.

*CERAM-A-STAR®950 is a trademark of Akzo Nobel Coatings Inc.