

**THERMAL
WINDOWS, INC.**

Colors
&
Finishes

AAMA 2603/2604 Powder Coat Finishes

No Minimum Volume Requirement applies to Tier 1 finishes.
(All hardware and vinyl is standard black color)



TWF 14111
White



TWF 14211
Creme



TWF 14212
Almond



TWF 14712
Sandstone



TWF 14711
Bronze

Performance

Powder coatings by Thermal Windows, Inc. are based on thermosetting super durable polyester technology that meets the AAMA 2603-98/2604-98 High-Performance Specification.

The coatings possess excellent weatherability and resistance to chemicals and corrosion.

Environmentally Friendly

Thermal Windows, Inc. uses dry powder coatings applied electrostatically in our state-of-the-art clean room, without releasing volatile organic compounds (VOC's) into the atmosphere.

The products represented in this brochure have been prepared as replications of actual powder coatings. Samples shown above may vary in color and gloss from actual coatings due to the effects of heat, light and manufacturing processes. It cannot be assumed that the final finish will exactly match these samples.

AAMA 2603/2604 Powder Coat Finishes

Minimum Volume Requirements Apply to Tier 2 finishes.

3,000 sq.ft. or more at standard pricing. Smaller quantities are available at an additional cost.

(All hardware and vinyl is standard black color)



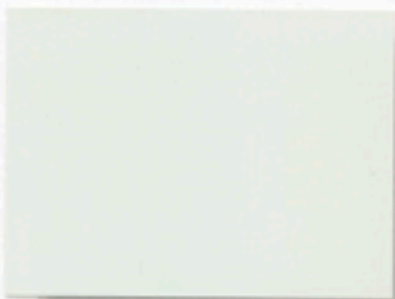
TWF 14421
Light Green



TWF 14422
Dark Green



TWF 14521
Medium Blue



TWF 14121
Bone White



TWF 14321
Rust Red



TWF 14721
Medium Bronze



TWF 14621
Light Gray



TWF 14622
Dark Gray



TWF 14821
Black

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Performance Requirements for AAMA 2603-98 / 2604-98 for Pigmented Organic Coatings on Aluminum Extrusions

Requirement	AAMA 2603-98	AAMA 2604-98
Color Uniformity – Color uniformity shall be consistent with the color range or numerical value as established between the approval source and the applicator.	✓	✓
Specular Gloss – Gloss values shall be within ± 5 units of the manufacturer's specification.	✓	✓
Dry Film Hardness – No rupture of film per ASTM D 3363	✓	✓
Film Adhesion – No removal of film under the tape within or outside of the cross-hatched area or blistering anywhere on the test specimen. Report loss of adhesion as a percentage of squares affected.	✓	✓
Impact Resistance – No removal of film from substrate.	✓	✓
Abrasion Resistance – The Abrasion Coefficient Value of the coating shall be 20 minimum.		✓
Chemical Resistance – Muriatic Acid (15-Minute Spot Test) No blistering and no visual change in appearance when examined by the unaided eye.	✓	✓
Chemical Resistance – Mortar (24-hour Pat Test) Mortar shall dislodge easily from the painted surface, and any residue shall be removable with a damp cloth. Any lime residue should be easily removed with the 10% muriatic acid solution described in Section 6.6.1.1 (AAMA 2603), Section 7.7.1.1 (AAMA 2604). There shall be no loss of film adhesion or visual change in appearance when examined by the unaided eye.	✓	✓
Chemical Resistance – Nitric Acid No more than 5 ΔE Units (Hunter) of color change, calculated in accordance with ASTM D 2244, when comparing measurements on the acid-exposed painted surface and the unexposed surface.		✓
Chemical Resistance – Detergent No loss of adhesion of the film to the metal. No blistering and no significant visual change in appearance when examined by the unaided eye.	✓	✓
Chemical Resistance – Window Cleaner There shall be no blistering or noticeable change in appearance when examined by the unaided eye and/or removal of film under the tape within or outside of the cross-hatched area.		✓
Corrosion Resistance – Humidity No formation of blisters to extent greater than "Few" blisters Size No. 8 as shown in ASTM D 714.	✓	✓
Corrosion Resistance – Salt Spray Resistance Minimum rating of 7 on scribe or cut edges, and a minimum blister rating of 8 within the test specimen field, in accordance with ASTM D 1654.		✓
Weather Exposure – Accelerated No loss of adhesion and only slight chalking or color change plus slight water staining.	✓	
Outdoor Exposure – Accelerated No checking, crazing or loss of adhesion after taping and only slight chalking and slight fading.	✓	
Weathering – South Florida Exposure Maximum of 5 ΔE Units (Hunter) color changes as calculated in accordance with ASTM D 2244, Section 6.3 after the exposure test per Section 7.9.1.1. (See AAMA 2604-09 publication, Section 7.9.1.2.1. Performance for complete details).		✓
Weathering – Chalk Resistance Chalking shall be no more than that represented by a No. 8 rating based on ASTM D 4214, Test Method A (Method D 659) after test site (weathering) exposure (per Section 7.9.1.1). Chalking shall be measured on an exposed, unwashed painted surface.		✓
Weathering – Gloss Retention Gloss retention shall be a minimum of 30% after the exposure test per Section 7.9.1.1 expressed as % Retention = 60° gloss exposed \div 60° gloss unexposed X 100%.		✓
Resistance to Erosion Less than 10 percent film loss after the exposure test per Section 7.9.1.1 expressed as a percent loss of total film: $100\% - \text{Dry film thickness exposed} \div \text{Dry film thickness unexposed} \times 100\%$.		✓