



Aluminum Coil Anodizing Corporation
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Product Specification Document

ACAD-452OG-XG Rev 2

Product ID: 452OG/XG Specular + (Aluminum Substrate)

Application: High Reflectance Aluminum Reflectors

Aluminum Substrate Properties: Aluminum Association

Alloy: 5052

Temper: H32

Mechanical Properties (typical):

Tensile Strength: 230 N/mm² (33,000 psi)

Yield Strength: 190 N/mm² (28,000 psi)

Elongation: 12%

Minimum Bend Radii: 0T

Polyester Silver Film Properties: (typical)

Film Strength: 185 N/mm² (27,000 psi)

Film Elongation: 130%

Film Thickness: 2.5 μ (0.001 in)

Optical Properties: (specification)

Total Reflectance (TR%)¹: 97 - 98

¹(Technidyne TR-2 (ASTM 1651-94))

Distinctness of Image (DI)²: 95 minimum

²(Hunter Labs D47 Dorigon (ASTM E430-83))

Specular Reflectance (RS)²: 88 minimum

15° Diffuseness (15°)²: 0.01 maximum

Iridescence Rating: Premium Low Iridescence

Availability: Sheet and Coil

Gage: 0.40 to 0.80 mm (0.016 to 0.032 inch)

Width: 25.4 to 1250 mm (1.0 to 49.213 inch)

Length: up to 3660 mm (up to 144 inch)

Laminate Product Characteristics: Vacuum metallized silver on polyester film, laminated to metal substrate.

- Film delamination strength – film tearing bond strength.
- Formability – no bend restrictions, no crazing, no cracking.
- Laminate reflector – ultraviolet exposure – 2500 hours with UV351 lamp - <1% reflectivity loss.
- Film UV exposure – 2000 hours with QUV A340 lamp with no visual affect on film.
- Surface abrasion resistance – 3000 cycles with no wear through (Taber Model 503).
- Satisfies UL flame spread requirements.
- Durable, easy to clean.
- White painted backside for corrosion protection.
- Recommended for fluorescent and other lighting applications where temperature is <170° F (not for high output lighting systems).
- Film passes 1000 hours of humidity exposure.
- 10 year warranty for “traditional” internal lighting applications.