



Aluminum Coil Anodizing Corporation  
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# Product Specification Document

ACAD-812OB-AB-BF Rev 2

**Product ID: 812OB/AB-BF Bright Smoke Chrome**

**Application: Architectural and Decorative**

**Material Specification:**

Alloy: 1090

Temper: H19

**Mechanical Properties (typical):**

Tensile Strength:	180 N/mm <sup>2</sup>	(26,000 psi)
Yield Strength:	165 N/mm <sup>2</sup>	(24,000 psi)
Elongation:	4%	
Minimum Bend Radii:	1T	

<b>For White Paint:</b>	
1T bend:	n/a
1T bend – dry heat:	n/a
0T bend:	n/a

**Optical / Anodized Properties:**

Total Reflectance (TR%) <sup>1</sup> :	% minimum			<sup>1</sup> (Technidyne TR-2 (ASTM 1651-94))	
Distinctness of Image (DI) <sup>2</sup> :	85 minimum			<sup>2</sup> (Hunter Labs D47 Dorigon (ASTM E430-83))	
Specular Reflectance (RS) <sup>2</sup> :	n/a			<sup>3</sup> (DIN 67530)	
15° Diffuseness (15°) <sup>2</sup> :	.01 maximum			<sup>4</sup> (Byk Gardner Micro Gloss Meter)	
Dr. Lange 60° <sup>3</sup> :	w/g	n/a	a/g	n/a	<sup>5</sup> (ASTM B137-89)
Gardner 60° Gloss <sup>4</sup> :	w/g	n/a	a/g	n/a	<sup>6</sup> (Hunter Lab mini-Scan XE Plus)
Anodize Film Thickness <sup>5</sup> :	2.5 to 4.0 microns			(0.00010 to 0.00016 inch)	
Iridescence Rating:	Not Controlled				
Color <sup>6</sup> :	L*	59 to 63	a*	-3 to 0	b* 0 to 2

**Availability:** Sheet and Coil

Gage:	0.30 to 1.0 mm	(0.012 to 0.040 inch)
Width:	12.7 to 1250 mm	(0.50 to 49.213 inch)
Length:	up to 3660 mm	(up to 144 inch)

**Tolerances (standard):** (Tighter tolerance may be possible. Contact your sales representative.)

Gage:	From:	0.25 to 0.40 mm	+/- 0.025 mm	(0.010 to 0.016 inch, +/- 0.001 inch)
		0.41 to 0.80 mm	+/- 0.040 mm	(0.017 to 0.032 inch, +/- 0.0015 inch)
		0.81 to 1.00 mm	+/- 0.050 mm	(0.033 to 0.040 inch, +/- 0.002 inch)
Slit Width:	From:	12.5 to 305 mm	+/- 0.125 mm	(0.5 to 12 inch, +/- 0.005 inch)
		306 to 610 mm	+/- 0.38 mm	(12.1 to 24 inch, +/- 0.015 inch)
		611 to 1250 mm	+/- 0.50 mm	(24.1 to 50 inch, +/- 0.020 inch)
Sheet:	Length:	Up to 1524 mm	+/- 1.0 mm	(Up to 60 inch, +/- 0.040 inch)
		1525 to 3050 mm	+/- 1.5 mm	(60 to 120 inch, +/- 0.060 inch)
		3051 to 3660 mm	+/- 2.0 mm	(120 to 144 inch, +/- 0.080 inch)
	Squareness: <sup>1</sup>	Up to 1200 mm	+/- 0.5 mm	(Up to 48 inch, +/- 0.020 inch)
		1201 to 2400 mm	+/- 1.0 mm	(49 to 95 inch, +/- 0.040 inch)
		2401 to 3660 mm	+/- 1.5 mm	(96 to 144 inch, +/- 0.060 inch)

<sup>1</sup> Difference in diagonals

Lateral Bow (in one meter):	Width Under 300 mm: 2.5 mm max.	(Width Under 12 inch: 0.100 inch)
	Width Over 300 mm: 1.25 mm max.	(Width Over 12 inch: 0.050 inch)

Flatness: Height between waves: 1% of wave length, 8mm (0.32 inch) maximum.

Burr: 10% of gage Not to exceed .08 mm (.003 inch)