



Aluminum Coil Anodizing Corporation
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Product Specification Document

ACAD- 490LB/BF Rev 2

Product ID: 490LB/BF Ultrabrite 90 (Luxal® Enhanced)

Application: Lighting Reflectors

Material Specification:

Alloy: 1090

Temper: H19

Mechanical Properties (typical):

Tensile Strength: 180 N/mm² (26,000 psi)
 Yield Strength: 165 N/mm² (24,000 psi)
 Elongation: 4%
 Minimum Bend Radii: 1T

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

Optical / Anodized Properties:

Total Reflectance (TR%) ¹ :	90% minimum				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 :	75 minimum				³ (DIN 67530)
15° Diffuseness (15°) ² :	0.0 maximum				⁴ (Byk Gardner Micro Gloss Meter)
Dr. Lange 60° ³ :	w/g n/a	a/g n/a			⁵ (ASTM B137-89)
Gardner 60° Gloss ⁴ :	w/g n/a	a/g n/a			⁶ (Hunter Lab mini-Scan XE Plus)
Anodize Film Thickness ⁵ :	0.18 to 0.25 microns (.000007 to .000010 inch)				
Iridescence Rating:	Premium Low Iridescence				
Color ⁶ :	L*	n/a	a*	n/a	b* n/a

Availability: Sheet and Coil

Gage: 0.3 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: ¹	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)

¹ 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)