



Aluminum Coil Anodizing Corporation  
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# Product Specification Document

ACAD-418RE/BF Rev 4

<b>Product ID:</b>		<b>418RE/BF Enhanced Textured Bright</b>			
<b>Application:</b>		<b>Lighting Reflectors</b>			
<b>Material Specification:</b>					
Alloy:	1090				
Temper:	H19				
Mechanical Properties (typical):					
Tensile Strength:	180 N/mm <sup>2</sup>	(26,000 psi)	For White Paint:		
Yield Strength:	165 N/mm <sup>2</sup>	(24,000 psi)	1T bend:	n/a	
Elongation:	4%		1T bend – dry heat:	n/a	
Minimum Bend Radii:	1T		0T bend:	n/a	
<b>Optical / Anodized Properties:</b>					
Total Reflectance (TR%) <sup>1</sup> :	94% minimum		<sup>1</sup> (Technidyne TR-2 (ASTM 1651-94))		
Distinctness of Image (DI) <sup>2</sup> :	19-23		<sup>2</sup> (Hunter Labs D47 Dorigon (ASTM E430-83))		
Specular Reflectance (RS) <sup>2</sup> :	23-29		<sup>3</sup> (DIN 67530) – Std = 93		
Diffuse Reflectance (TR-RS) <sup>2</sup> :	65-71		<sup>4</sup> (Byk Gardner Micro Gloss Meter)		
Dr. Lange 60° <sup>3</sup> :	w/g	75 - 95	a/g	65 - 85	
Gardner 60° Gloss <sup>4</sup> :	w/g	n/a	a/g	n/a	
Anodize Film Thickness <sup>5</sup> :	Enhanced PVD				
Iridescence Rating:	Premium Low Iridescence				
Color <sup>6</sup> :	L*	n/a	a*	n/a	b* n/a
<sup>5</sup> (ASTM B137-89)					
<sup>6</sup> (Hunter Lab mini-Scan XE Plus)					
<b>Availability:</b>		Sheet and Coil			
Gage:	0.40 to 0.80 mm	(0.016 to 0.032 inch)			
Width:	12.7 to 1000 mm	(0.5 to 39.37 inch)			
Length:	up to 3660 mm	(up to 144 inch)			
<b>Tolerances (standard):</b>		(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)			