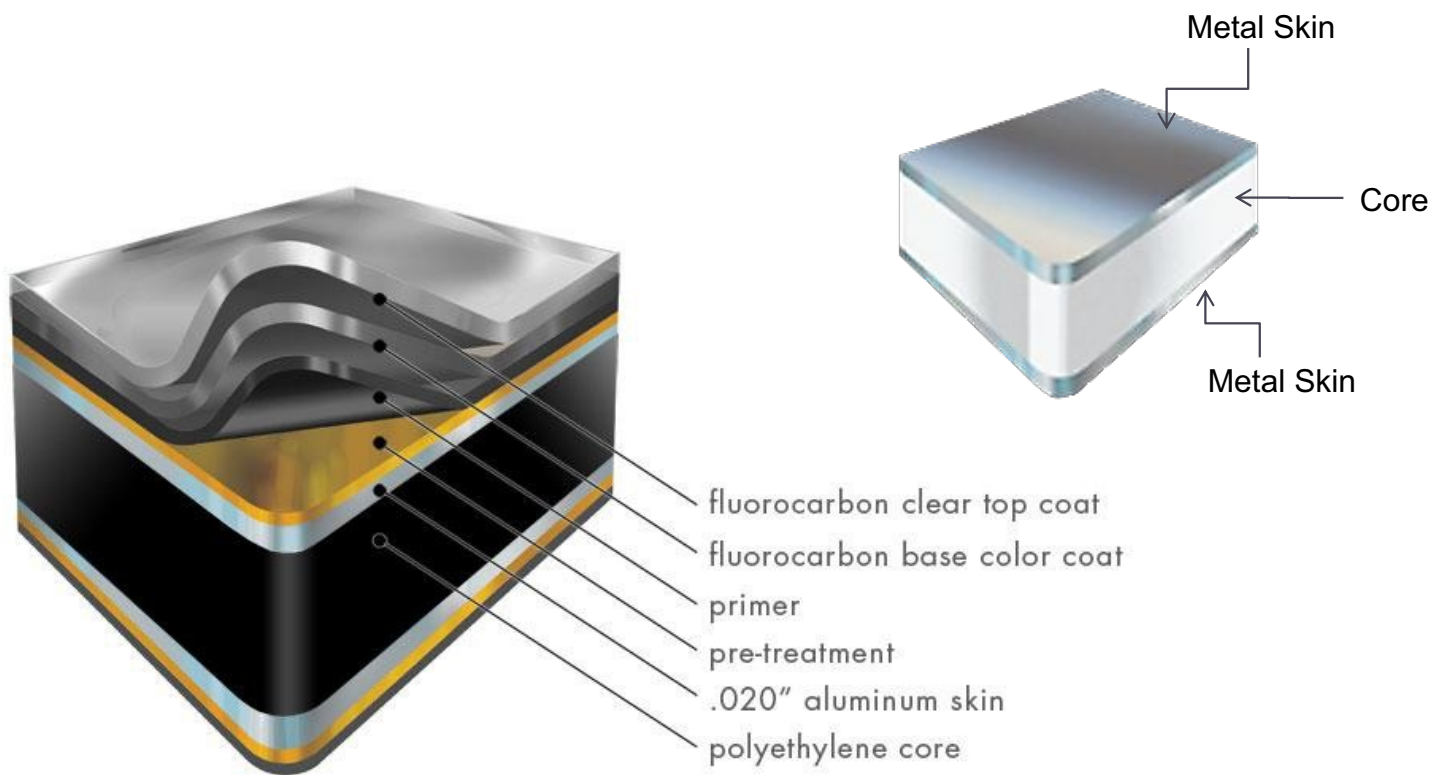


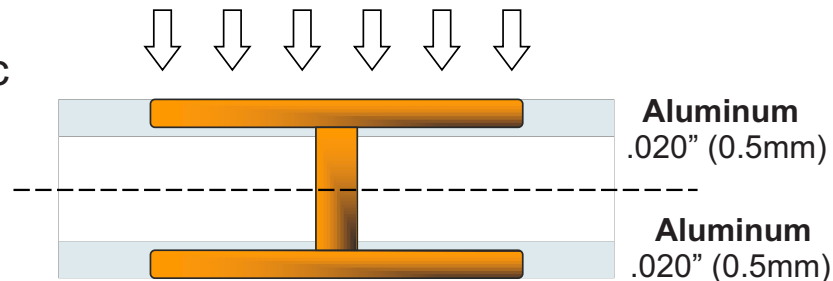
# ACM (Aluminum Composite Material) Panels

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## ACM Structural Strength

- ACM composite panels are similar to “I- beams,” in that the two skins are connected by a thermoplastic core.
- This configuration provides more structural stiffness than would be present if the skins were in direct contact
- As core thickness increases, this effect also increases.

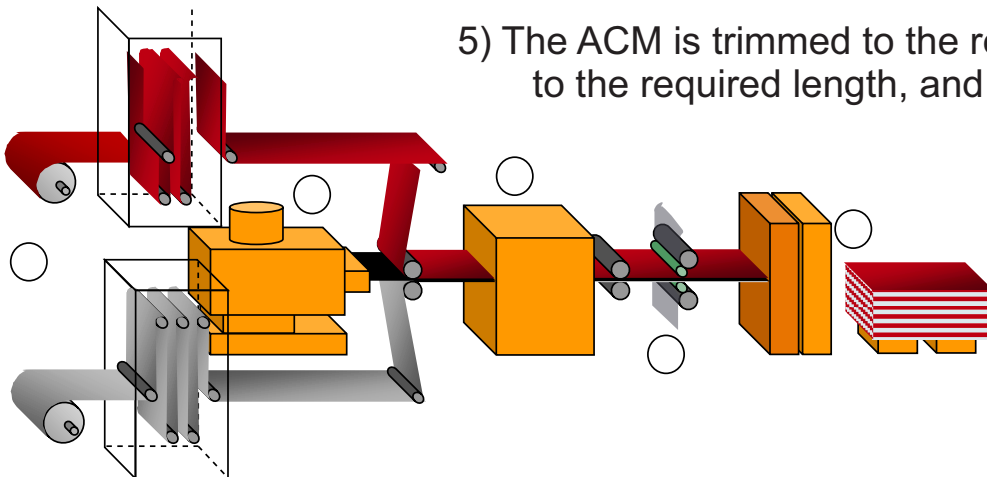


Thickness Inch (mm)	ACM		Solid Aluminum		Weight Ratio Solid Aluminum =100%
	Flexural Stiffness C-393 (PSI)	Weight PSF	Equivalent Thickness	Weight PSF	
1/8" (3mm)	1.04 x 10 <sup>9</sup>	<b>0.93</b>	.106" (2.7)	<b>1.50</b>	62.0%
1/4" (6mm)	4.98 x 10 <sup>9</sup>	<b>1.50</b>	.177" (4.5)	<b>2.50</b>	60.0%

## ACM Manufacturing Process

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- 1) The aluminum / metal coils are introduced into the process from two pay-off reels.
- 2) The laminating rollers bond the aluminum to the continuously extruded thermoplastic core.
- 3) The laminated material then enters the cooling chamber and is constantly moved at a steady rate by the pulling rollers.
- 4) A protective masking film is applied to the ACM to protect the surface finish.



- 5) The ACM is trimmed to the required width, sheared to the required length, and stacked for inspection and final packaging.
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## ACM Characteristics

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- Thickness:  
Available in 1/8" and 1/4" thickness. Application use determines thickness required.
  - Sizes:  
Available in any of our standard sizes: 48" x 96", 48" x 48", 32" x 48" and 24" x 48". Custom Sizing available upon request.
  - Core:  
Manufactured with a polyethylene (pe) core or fire-resistant (fr) cores. Type of core is determined by application and/or local building codes. For interest In fire rated ACM please contact Acurio.
  - Aluminum Skins:  
Range from .005" to .032" thick. Typical thickness is .020".
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## ACM Advantages

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- Strength:  
ACM offers the structural strength of steel with the inherent lightness and flexibility of aluminum. ACM has a strength to weight ratio far below conventional materials, resulting in faster construction times and significant savings in terms of labor and materials.
  - Durability:  
ACM offers superior durability, weather-resistance, and resilience. ACM panels retain remarkable tensile strength, delivering superior flatness, rigidity and stability under changing thermal conditions.
  - Flexibility:  
ACM can be used as a cladding material for exterior and interior applications; for walls, ceilings, canopies, beam wraps, pergola tops column cladding, fixtures, free-standing kiosks and signage. ACM panels are pre- finished, flexible, and can be molded, curved, bent and routed into complex shapes.
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