

AL-LEADER

INNOVATION • STYLE • PERFORMANCE

Super Light Weight, Flat Panel for Signage



URL <http://www.alpolic.com>

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AL-LEADER is a super-lightweight aluminum composite material (ACM) that offers a substantial reduction of weight and cost by thinner aluminum skins and the foamed plastic core. It is finished with polyester coatings and has excellent flatness. It is suitable for signboards, guide signs and other facing panels. It is actually used for a wide variety of industrial applications, too.

1. Features

AL-LEADER has the following features.

- (1) Super light weight: AL-LEADER 3mm thick is only 2.5-2.9 kg/m²
- (2) High rigidity: AL-LEADER 3mm is equivalent to 1.8mm thick aluminum sheet in rigidity. And the weight is only 60%.
- (3) Excellent flatness and smoothness: AL-LEADER has the excellent flatness derived from the continuous laminating process, and the excellent smoothness from the coil coating process..
- (4) Easy to cut: We can cut AL-LEADER panel easily with fret saws, routers and utility knives.



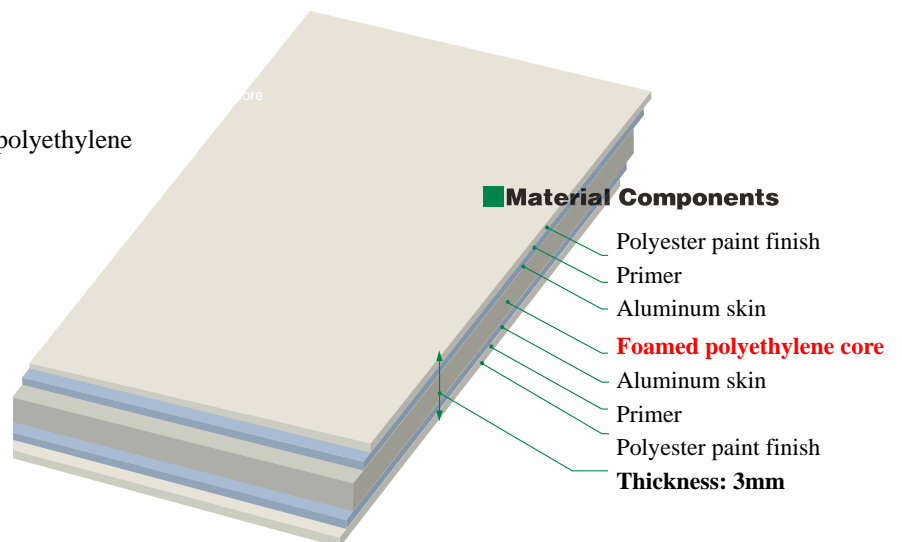
POP indoor sign with AL-LEADER

2. Material composition

AL-LEADER is composed of a foamed polyethylene core sandwiched between two skins of approximately 0.1mm thick aluminum.

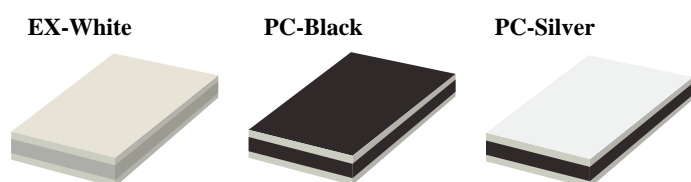
3. Panel dimension

Thickness: 3mm
Size: 1220×2440mm
Note: Custom sizes are available upon request.



4. Surface finish

Both top and back sides are finished with polyester coatings. The coating is applied in our continuous coil coating line. Three colors are available: EX-White, PC-Black and PC-Silver. EX-White consists of different



glosses of the same color (30% gloss on one side and 70% gloss on another side). EX-White has a white core, and the others'

are black. The finished surfaces are protected with transparent protective films.

Note: Custom colors are available upon request.

| Color | Gloss | Color of core |
|-----------|-------------|---------------|
| EX-White | 30% and 70% | White |
| PC-Black | 15% | Black |
| PC-Silver | 75% | Black |

5. Characteristics

(1) Properties

The following table shows AL-LEADER's properties in comparison with aluminum and acrylic sheets of typical thickness.

| | Unit | AL-LEADER | Aluminum sheet | Acrylic sheet |
|-------------------|-----------------------|-----------|----------------|---------------|
| Typical thickness | | 3mm | 1.2mm | 3mm |
| Panel weight | kg/m ² | 2.5-2.9 | 3.2 | 3.6 |
| Thermal expansion | ×10 ⁻⁶ /°C | 24-33 | 24 | 50-90 |

(2) Rigidity (bending strength)

AL-LEADER has a high rigidity compared to aluminum and acrylic sheets, as shown in the following table.

| | AL-LEADER | Aluminum sheet | Acrylic sheet |
|----------------------------------|-----------|----------------|---------------|
| Thickness of equivalent rigidity | 3mm | 1.8mm | 5.0mm |
| Panel weight, kg/m ² | 2.5-2.9 | 4.8 | 6.0 |
| Weight ratio, AL-LEADER=1.0 | 1 | 1.7-1.9 | 2.1-2.4 |

6. Examples of processing

(1) Cutting with a fret saw, a router and a utility knife



(2) Applying cutting films



(3) Examples of cutting film project



(3) Examples of cutting film project - continued



7. Examples of application

(1) Signs



(2) Door panels



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