

## ACM EASYBOLD - TECHNICAL DATA SHEET

ITEM	UNIT	SPECIFICATION
Thickness of ACP	mm	3
Color face aluminum thickness	mm	0.21
Back face aluminum thickness	mm	0.18
Variation of the thickness of aluminum	mm	±0.02
Weight	kg/m <sup>2</sup>	3,8
Length variation tolerance	mm	- 3 / +3
Width variation tolerance	mm	- 2 / +2
Thickness variation tolerance	mm	± 0.20
longitudinal roughness	mm	≤3
<b>Mechanical characteristics</b>		
Coating flexibility		2T
Impact resistance	Kg/cm	50 – No peeling and cracks
Resistance to grinding	L/um	10,3
Resistance to pollutants	%	3,18
Resistance to scrubbing		No changes in up to 1000 scrubs
Resistance to acid	ΔE	1.48
Resistance to alkaline	ΔE	0.19
Bending force	Mpa	151
Elastic modulus for bending	Mpa	7x10 <sup>4</sup>
Penetration resistance	KN	8.65
Cutting force	Mpa	28
Stripping force	Mpa	164
Thermal expansion coefficient		1.28x10 <sup>-5</sup> °C <sup>-1</sup>
<b>Core</b>		
Compound core of recycled polyethylene	g/cm <sup>3</sup>	1.18
<b>Surface properties</b>		
Paint		Polyester
Paint thickness	μm	From 15 to 18
Color variation allowed		Δ ≤2.0
Cleaning processes before painting		Degreasing and Achromatization
Brightness	%	±10
<b>Thermal properties</b>		
Temperature resistance	°C	from -50 to 95
Heat distortion temperature	°C	102°C
Fire Performance		C

## COMPOSITION AND GENERAL INFORMATION

### SPECIFICATION

Metal panel composed of two pre-painted aluminum sheets connected to a Low-Density Polyethylene (LDPE) core, which gives lightness and malleability to the material. The union of the strength and durability of aluminum with the malleability of the core gives the EASYBOLD ACP panel versatility for different applications.

To ensure the resistance and final quality of the ACM panel, the correct specification for each use is fundamental, considering the following aspects and particularities:

#### 1) CORE

LDPE - Low Density Polyethylene, is obtained through the polymerization of ethylene. The core, with its characteristics confer acoustics, lightness, rigidity and flatness to the panels.

#### 2) ALUMINUM

Possible corrosion can occur in the base metal, so it is important to know the climatic conditions of the installation site of the panels for the correct indication of the alloy more appropriate and also the thickness of the aluminum blades.

##### 2.1) Alloys and Tempera

BOLD works with the 3000 family alloys. Due to their good formability and corrosion resistance with slightly higher mechanical properties, particularly when cold deformed, alloy 3003 H14 is suitable for applications in places under normal climatic conditions (free from salinity and chemicals).

#### 3) PAINTING

The pre-painting obtained through the coil-coating system provides the aluminum surface with a uniform finish, high strength and quality. Every color and aesthetic effect require a specific finish, so the ACP EASYBOLD has the following characteristics of painting:

##### 3.1) POLYESTER RESIN

Direct enamel on the treated metal, abrasion resistant, high resistance to calcination and with excellent uniformity and stability of color and brightness. It is suitable for the Visual Communication market, corporate image environments, advertising, labeling, interiors, furniture, providing excellent finishing associated with at the best value for money. **Estimated durability of up to 5 years.**

#### 4) WARRANTY

BOLD guarantees that the aluminum composite panel supplied meets all specifications mentioned in its technical sheet, following the quality of the Polyester paint coating, therefore, provides the product with warranty in accordance with the specifications in the table below, following the conditions of this term.

Paint	Application	Warranty	Warranty Type
Polyester	Internal Use	5 years	-

##### 4.1) Coverage

The warranty provided in here covers the following degradations and deterioration of the surface of the finished product:

- Delamination\* of the aluminum blades;
- Ripples greater than 0.5% in relation to d/f;
- Sizing outside the specified;
- Lack of flatness before installation;
- Loss of adhering from painting to base metal;
- Appearance of bubbles in the organic coating;
- Appearance of fractures in the lining;

\*For the delamination aspect of the sheets, there is no manufacturer's warranty when there is cutouts or holes in the panels, leaving the panels or parts with and/or edges of the polyethylene exposed to the environment.

##### 4.2) Non-Coverage

For the EASYBOLD ACP panel with Polyester paint, it does not include warranty against loss or change in color, specifically when installed in external environment. The use is contraindicated for architecture and civil construction, in permanent works that require color stability or for environments with high exposure to weather.

#### 5) THE WARRANTY IS VALID WHEN:

- Installation of the panels has been carried out properly;
- The protective film is removed immediately after installing the panels, to avoid drying, extraction difficulties and other problems that damage the paint.

- cleaning procedures are followed in accordance with the manufacturer's recommendations, at least 01 (one) time a year, applying water or specific cleaning products indicated by BOLD Participações S/A;
- Do not use chemical products that contain acid in their formula, such as: turpentine-type solvents, Solupan, concentrated detergents. These components can cause loss from gloss (matting) or irreversible damage to the paintwork;
- The panels have not been cleaned with abrasive sponges for grinding impurities;
- All term recommendations for storage and handling of panels;
- No contact of aluminum with different materials, especially steel; and if necessary, an insulator or anti-corrosion tape must be used in order to avoid erosive or electrolytic action;
- The removable film is removed from the folding parts before they are sealed;

#### **6) THE WARRANTY DOES NOT APPLY WHEN:**

- If, during the warranty period, the provisions of the term, or in the installation and cleaning manual of BOLD Participações S/A;
- Damage caused to the painted surface due to the non-immediate removal of the film of protection soon after installation, causing marks or releasing residues of glue on the panel;
- Damage or defect in the panel is caused by any reason other than the material composition;
- If the substructure used is steel, which is highly corrosive and incompatible for use with aluminum, is not properly painted or even insulated with the anti-corrosion tape;
- Panels have been mechanically damaged or exposed to emission toxic or polluting sources, in particular chemical installations that use organic solvents and oil derivatives presenting acid vapors, alkaline products and aqueous residues from infiltrations;
- Found that the panels have been exposed to smoke, fire, and/or natural phenomena such as lightning, wind or sand storms, tornadoes, hail, or other events caused by nature, and/or damage caused due to mechanical accidents or improper handling such as falling targets, explosions, fires, etc.
- Improper storage, handling, fabrication and installation, such as inadequate reception structure, type of fastening not suitable for the profile of the work, failure to apply sealants for sealing;
- Improper installation due to the absence of a fall and/or angle less than 05° (five degrees) compared to the horizontal line, showing retention marks and/or allowing water to accumulate;
- Any form of damage, direct or indirect, caused by third parties and which may affect the quality of the coating, and/or deterioration or damage caused to the panel by attitudes of vandalism, impacts, misuse, abuse or negligence in cleaning or maintenance, and/or damage caused by any change in panels that alter their original characteristics and/or installations initials.

## **7) PROPER USE AND MAINTENANCE**

### **7.1) Storage**

The maximum storage period should be up to 12 months, and to avoid deformation or bending of the panels, they must be stacked horizontally on pallets or some type of support with an inclination of around 05° (Five degrees) for drainage purposes, and kept 15cm (fifteen centimeters) from the floor to allow ventilation.

All pre-painted material must be stored in a covered place, protected against moisture and condensation. Protections and closures with tarpaulins or plastic films against the weather must not be completely closed in order to allow adequate ventilation.

It is not recommended to store panels of different sizes in a same pile, as the weight and edges of the smaller panels can mark and/or scratch the larger panels.

### **7.2) Cleaning and maintenance**

In case of cleaning and maintenance, it is indicated to follow the following procedures:

- Wash the surface with water and neutral detergent;
- Rinse with clean water jet;
- Drying can be outdoors, with the aid of squeegee or fabrics that do not leave lint;
- For removal of silicone compounds and grease use isopropyl alcohol;
- Do not use watercolor solvents and acidic products that may cause bubbles and loss of brightness.

## **8) POLICY OF COMPENSATION OR EXCHANGE OF DEFECTIVE PRODUCTS**

If all requirements are proven, BOLD Participações S/A will bear the only with the replacement of panels that fall within the conditions of the term of warranty. No extra costs will be included, such as:

removal/reinstallation, materials, products and equipment necessary to carry out the activities, and transport expenses. In the event of partial or complete replacement of the product, the amount of damage will be the ratio proportional to the time of installation of the product, and the amount of material to be replaced, or amount to be refunded, shall not exceed the unit price of the product.

## 9) NOTIFICATIONS

Sendo comprovado o cumprimento de todos os requisitos, a BOLD Participações S/A arcará **unicamente** com a reposição dos painéis que se enquadram nas condições do termo de garantia. Não serão inclusos quaisquer custos extras tais como: mão-de-obra de remoção/reinstalação, materiais, produtos e equipamentos necessários para realizar as atividades, e despesas com transportes.

Em caso de substituição parcial ou integral do produto, a quantidade de danos será considerada na razão proporcional ao tempo de instalação do produto, sendo que, a quantidade de material a ser substituído, ou valor a ser reembolsado, não deverá exceder o preço unitário do produto.

## 10) NOTIFICAÇÕES

To obtain the effective warranty, the owner must request the document within 30 days after installation for the warranty. The document will only be valid after the data and with the date and signature of BOLD Participações S/A. The warranty will have as its start date the date of issue of the invoice, and will be automatically canceled in the contrary to the warranty term delivered to the customer.

In addition, the terms of the warranty will only apply to products installed and stored properly. Any warranty-related claim must be claimed within 10 days of the defect and shall allow inspection of the defect to be product on site by the supplier. It was found that the problem was caused in the improper handling, processing or installation, the warranty is not valid.

## 11) CRITERIA AND DAMAGES

BOLD Participações S/A merely re-resets the panels in accordance with the examinations carried out by professionals of the company, satisfactorily noting the existence of defect of the material.

Depending on the severity and extent of the problem, you can only choose compensation or replacement of the panel, not including any extra costs such as hand removal/reinstallation, as well as equipment and transportation expenses.

Any and all claims by the buyer regarding defects observed in the product during the term of the warranty will only be met upon submission of the respective guarantee document, the sales tax document and the conduct of a technical survey of the product for the finding of the alleged defect.

If at the time of the complaint the original product is no longer in manufacture, any replacements will be made by equivalent products. Defects must be reported to BOLD Participações S/A within a period of 10 (dec) days from the date of the defect in the product, and must be done in writing and sending images, informing all the data necessary for traceability.

The notified panels, if not installed, should be stored and stored in conditions until the technical analysis of the company. Any fact that impairs or creates new defects shall be deemed to be the responsibility of the buyer.

It is the exclusive option of BOLD Participações S/A to withdraw or modify its product lines and Colors. If the original color is no longer available, the replacement of the product will be equivalent to originally acquired.

Considering that each batch produced is unique and unique, there is no possibility of identical reproduction at different times - being subject to the difference of coloring/tint.

For this reason, BOLD Participações S/A recommends that at the time of the purchase is increased by 3% (three percent) over the amount required, such as margin of safety to avoid any problems with color/tint divergence, as well as exchange or replacement in any maintenance.

If you have any questions, please contact our Commercial department or Customer Service Consumer (SAC).

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