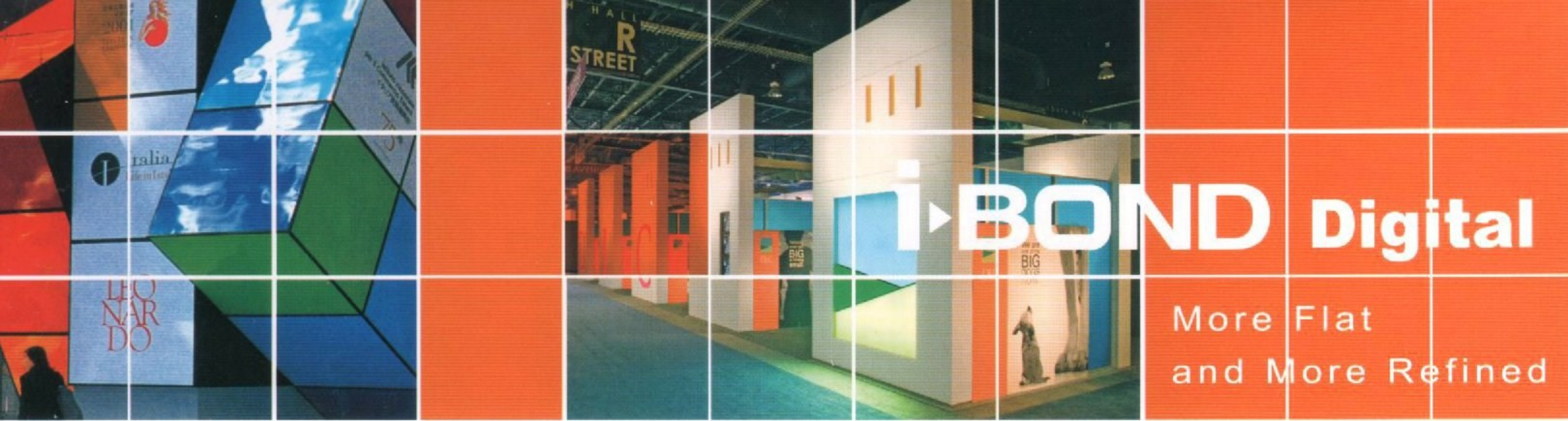


For Your Ideas, Ideas For You







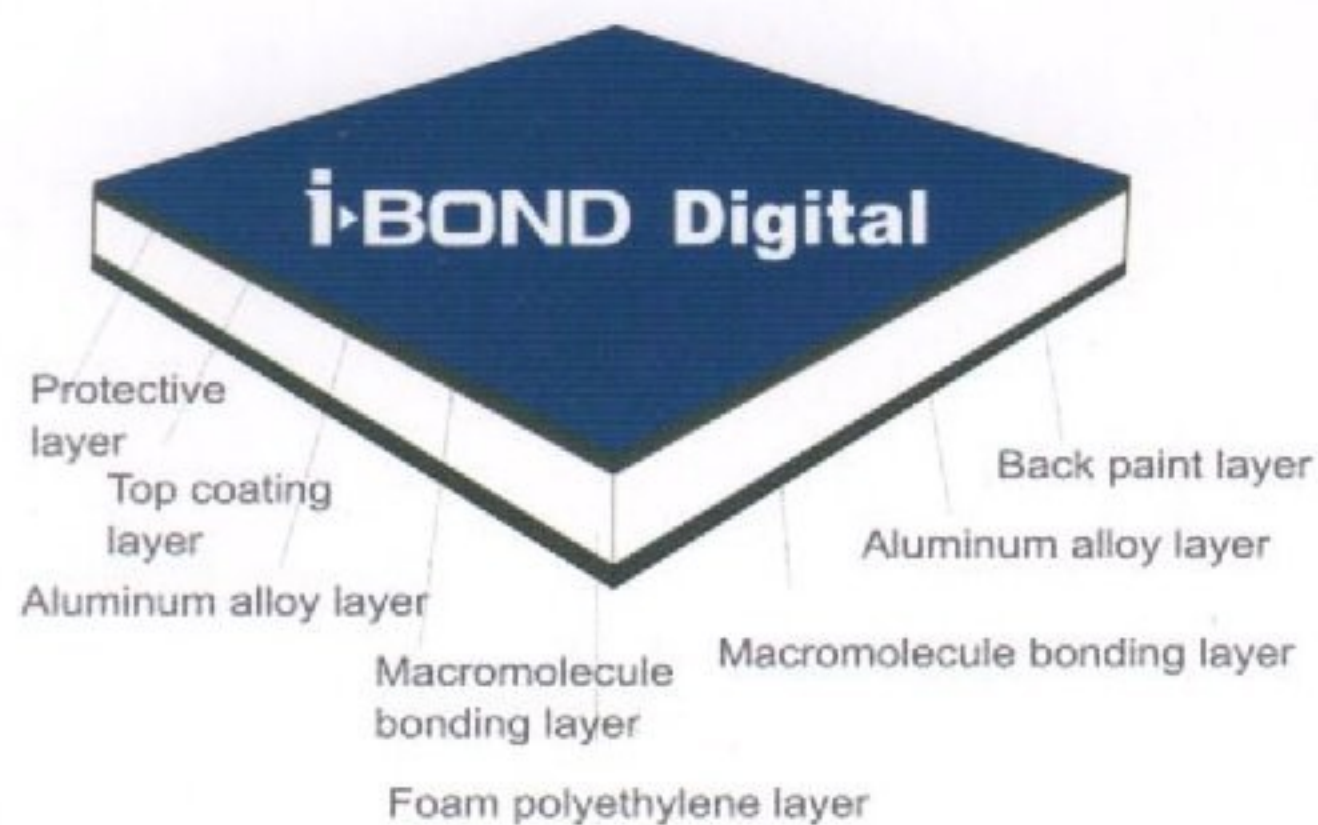
# i-BOND Digital

Aluminum Composite Panel

For Your Ideas, Ideas For You

i-BOND Digital is Aluminum-plastic composite panel specially for Digital UV flat printing, which has the outstanding features of smooth glossy surface, high definition printing, good printing ink absorption, etc. It is a Aluminum-plastic composite panel specially for high-end digital printing, and a brand new advertising material.

## Product Composition and Specification



### Product Features

- Aluminum Alloy: 1000 series or 3000 series aluminum alloy
- Coating: special coating for digital printing
- Material of core: High pressure and low density polyethylene
- Film: special film for digital printing

### Method of Processing and construction

- Surface Preparation: film sticking, screen printing and flat printing; Range of processing temperature: -30c~70c;
- Method of Processing: blade cutting, edge plane, NC cutting & molding, drilling, punching, arc rolling or arc pressing, grooving & flanging.
- Method of Construction: bonding, chucking, riveting or bolting by Aluminum sections.

### Product Specifications

- Thickness: 2-6mm; 2mm, 3mm and 4mm are recommended;
- Width: 1000-1575mm; 1220mm, 1250mm and 1500mm are recommended;
- Length: Maximum is up to 5800mm for convenient transportation, but 2440mm, 3050mm and 4050mm are recommended.





## Product Descriptions

Table 1 Part Performance of IBOND 3mm20s Aluminum-Plastic Composite Panel

Coating	Requirement	Composite Panel	Requirement
Coating Rigidity	≥2H	Length Deviation	≤2mm
Adhesive Force	Cross-Cut Method Level 0	Width Deviation	≤1mm
Coating Flexibility	≤2T	Thickness Deviation	≤0.1mm
Durability	≥5L/μm	Diagonal Deviation	≤3mm
Boiling Water Resistance	No change after 2 hours	Edge Nonstraightness	≤1mm/m
Alkali Resistance	No change	Angularity	≤5mm/m
Acid Resistance	No change	Areal Density	2.88kg/m <sup>2</sup>
Solvent Resistance	No change	Bending Strength	≥60MPa
Washing Resistance	No change after 10000 times	Flexural Modulus	≥15000MPa
		Through Resistance	≥5KN
		Shear Strength	≥20MPa
		180 Peeling Strength	≥5N/mm
		Thermal Shock Resistance	No change

i-BOND Digital Aluminum-plastic Panel is in conformity with the EU Quality Safety RoHS Certification.

**Test Method:**

Refer to IEC 62321/2nc CDV(111/95/CDV): EU Procedures for the Determination of Levels of Regulated Substance in Electrotechnical Products.

**Conclusion:**

in conformity with the requirements of EU RoHS Directive 2008/95/EC and the succeeding revision directive.

**Test Result:**

Selection

Table 2 Reference Table of the Areal Densities of Different Materials with the Same Rigidity (Bending Strength, Flexural Modulus)

kg/m <sup>2</sup> Areal Density	3.8	6.5	13.2	5.6	8.2
Item Name	Aluminum-Plastic Panel	Pure Aluminum Panel	Steel Panel	PVC Panel	Acrylic Panel

Table 3 Test Result by the Chemical Process Regulated as per EU RoHS Directive 2008/95/EC

Test Item	Cadmium	Lead	Hydrargyrum	Hexavalent	PBB	PBDE
Test Result	None	None	None	None	None	None





## Product Features

### Special Advantages that Distinguish this product from other Advertising Panels

i-BOND Digital aluminum-composite panel, same like KT Panel, Foamed PVC sheet, acrylic panel, glass, pure aluminum panel, ceramic tile, stone and wood board is material for advertising decoration. However, the superior performance of i-BOND Digital aluminum-composite panel is gaining increasing recognition.

**Superior dimension precision:** small dimensional tolerance in length, width, thickness, diagonal and angularity.

**Convenient and diversified processing:** applicable for digital flat cutting & molding. Easy for processing of arc-bending, punching, arc-pressing, bolting and riveting. Easy for large section assembly, with smooth overall appearance and good integrity.

**Excellent physical property:** high surface flatness, hardness, rigidity and strength, and low areal density.

**Excellent chemical property:** excellent chemical stability such as high performance of acid, alkali, oil and salt resistance.

**Diversified Specifications:** The max width can be made up to 1000mm~1550mm, and the max length can be up to 6m; with the aid of section assembly of IBOND Digital composite panel, the large scale overall section assembly for sections of any size can be realized.

**Long service life:** No disqualified status such as coming off of the coating shall happen after 10-year interior use. Range of working temperature: -30°C~70°C.

**Highly Economical:** convenient for flat transportation, processing, and molding; low expenses in transportation, construction and management.

**Highly environment-friendly:** this product is in conformity with CE Certification as well as RoHS Certification and is recyclable.

### Special Advantages that distinguish this product from ordinary aluminum-plastic panels

- Good flatness
- High fineness
- Strong ink absorption
- Easy peeling of protective film

Extra-long weather resistance, extra-strong abrasion resistance: top grade UV protective polyester paint (meet ECCA requirement) for surface preparation. The warranty is 8-10 years, which can be expanded to 15-20 years if PVDF coating authorized by Kynar500.

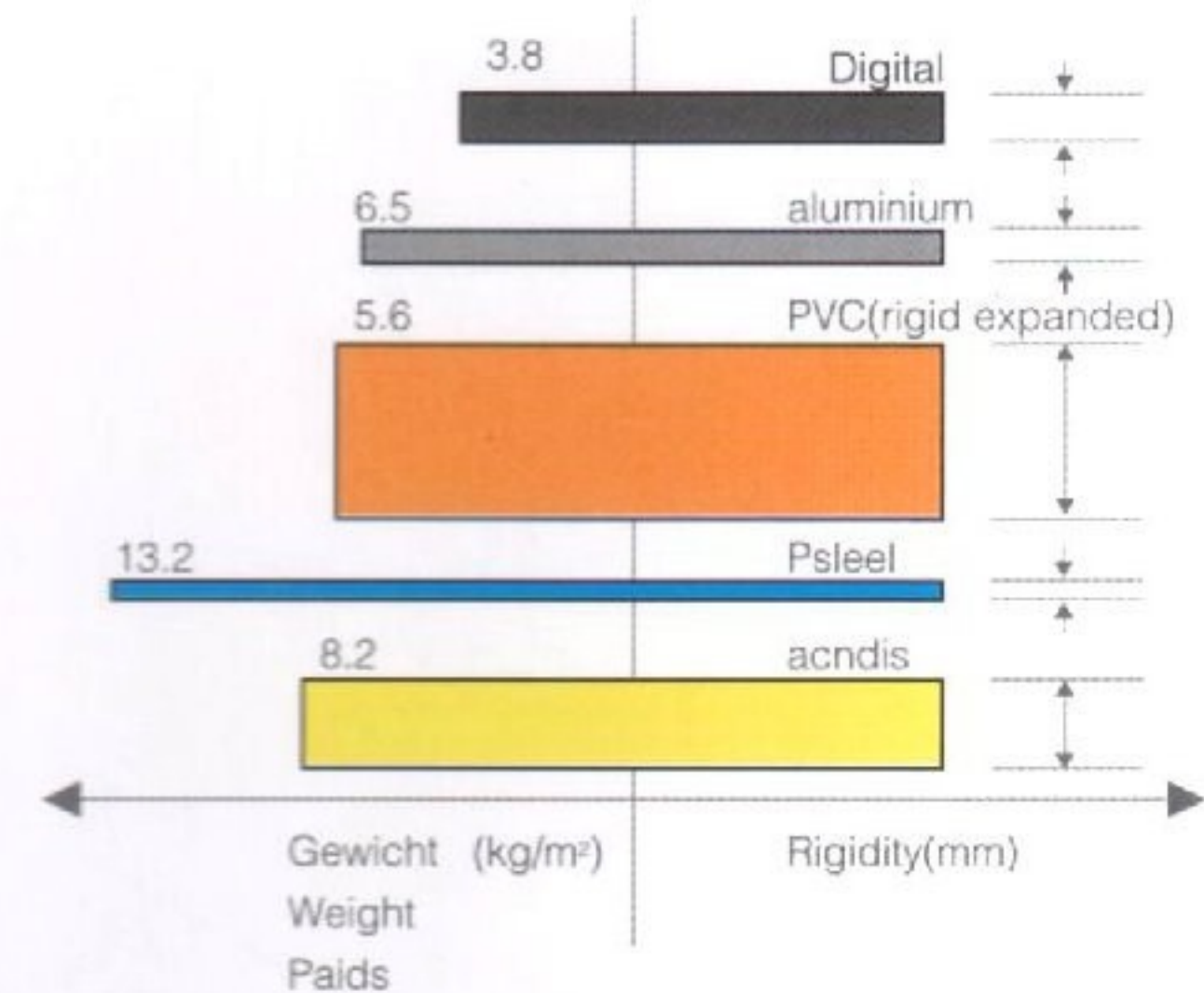
#### Test Result of Weather Resistance of Digital

Time	Color Difference	Pulverization
	ECCA/T3 ASTMD-2244-89	ASTMD-659-86
	dE	Index: 1-10
5 years	3	8
7 years	3	7
10 years	4	7

dE 3= Excellent      Index 10= no pulverization  
dE 4= Good          Index 1= serious pulverization  
dE 5= Pass

**Good Rigidity: Incredible Lightweight with astonishing hardness**

Comparison of thickness and density of different materials with the same rigidity



## Title & Honor



ISO9000 Quality Certification by TUV



CE Certification



SGS Certification

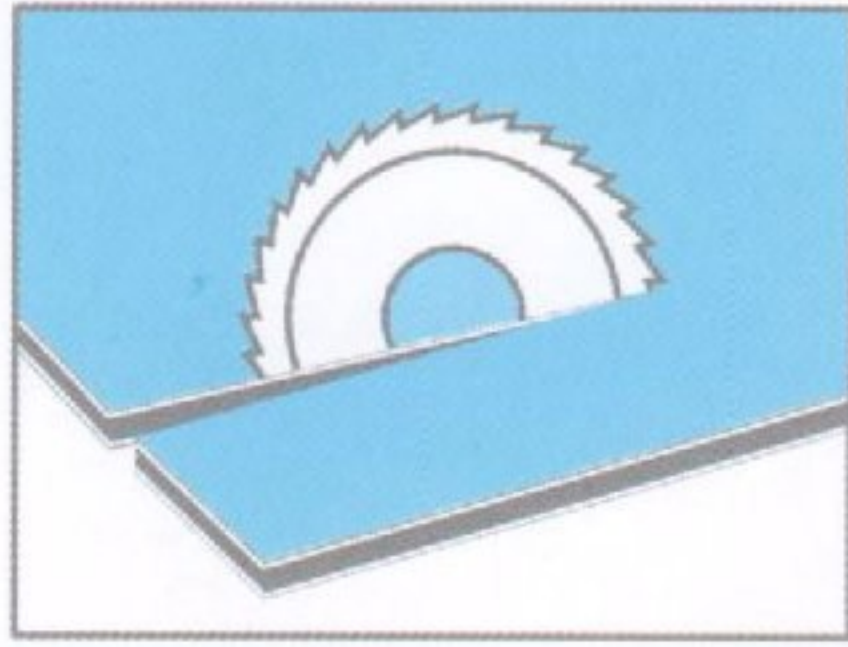


ROHS Certification

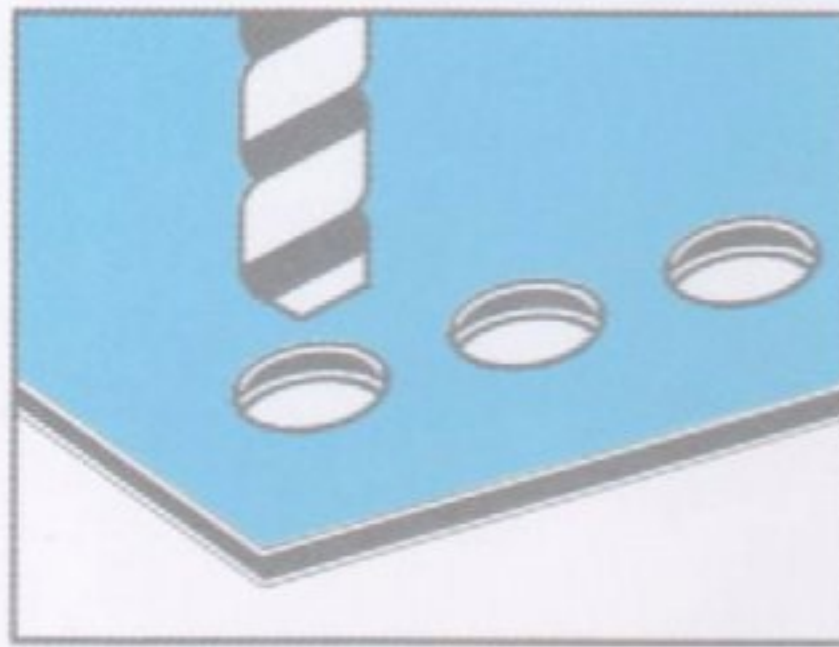




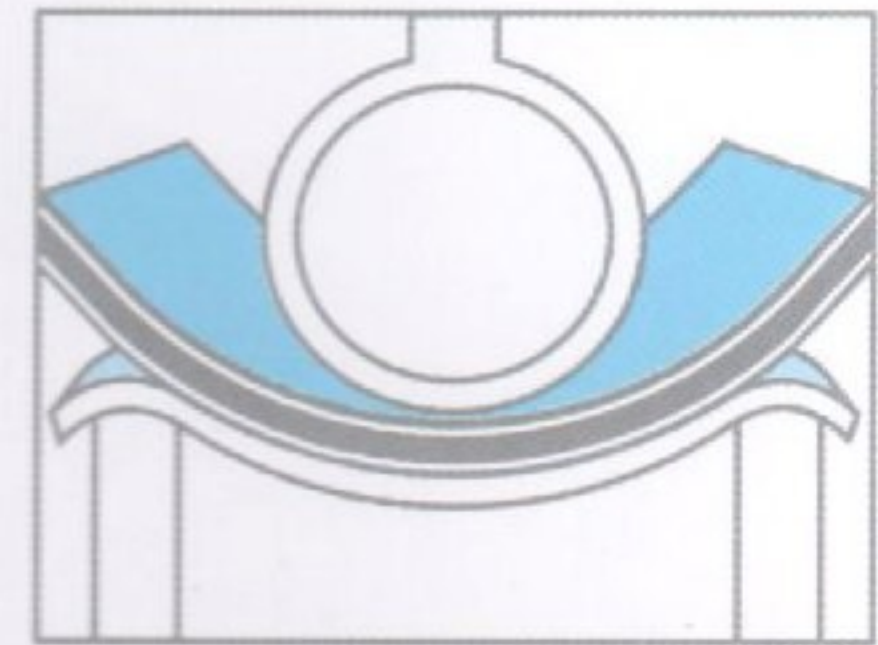
Processing Techniques



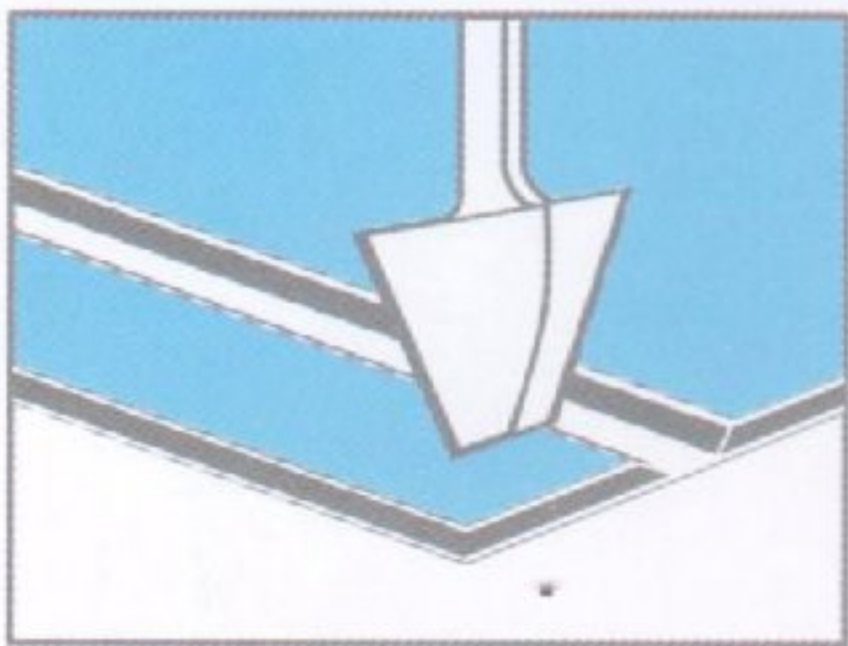
Circular Saw Blade: Trapezoidal Flat Right Angle Blade



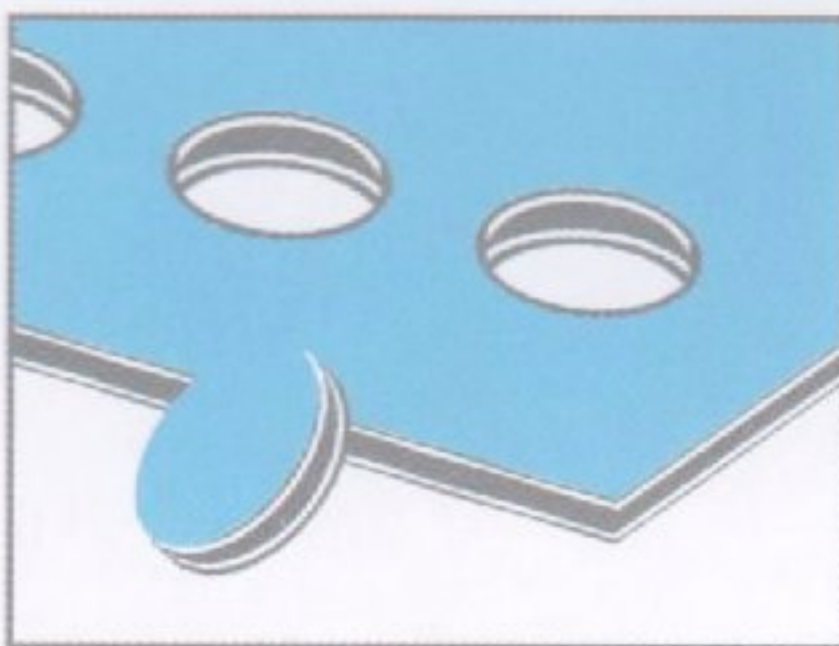
I BOND is easy to drill. We recommend drills specially applied in aluminum and plastic drilling for better drilling results; as for the drilling of bigger orifice, locatable drill cutting angle is recommended.



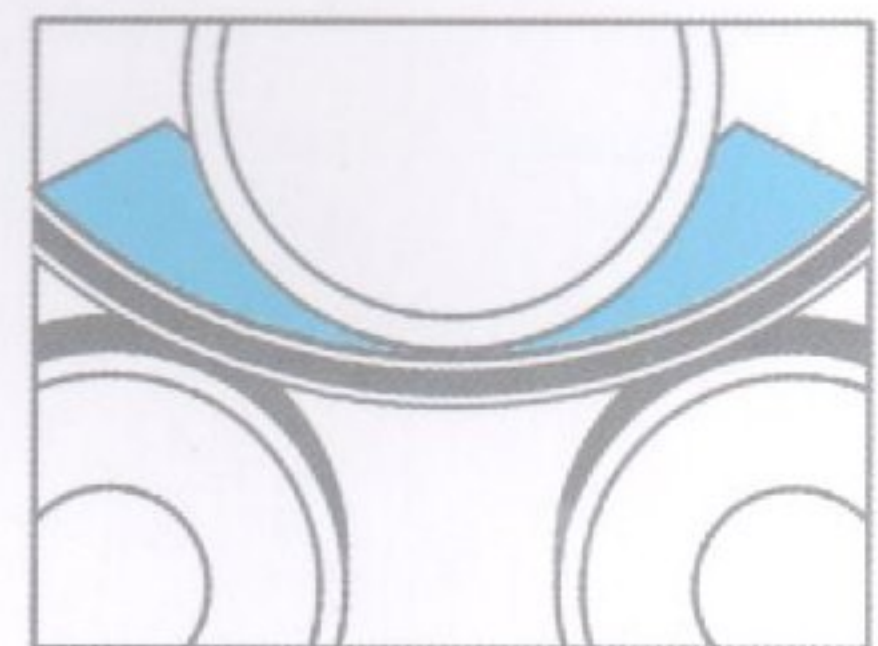
The min IR  $R=15 \times t$  = panel thickness



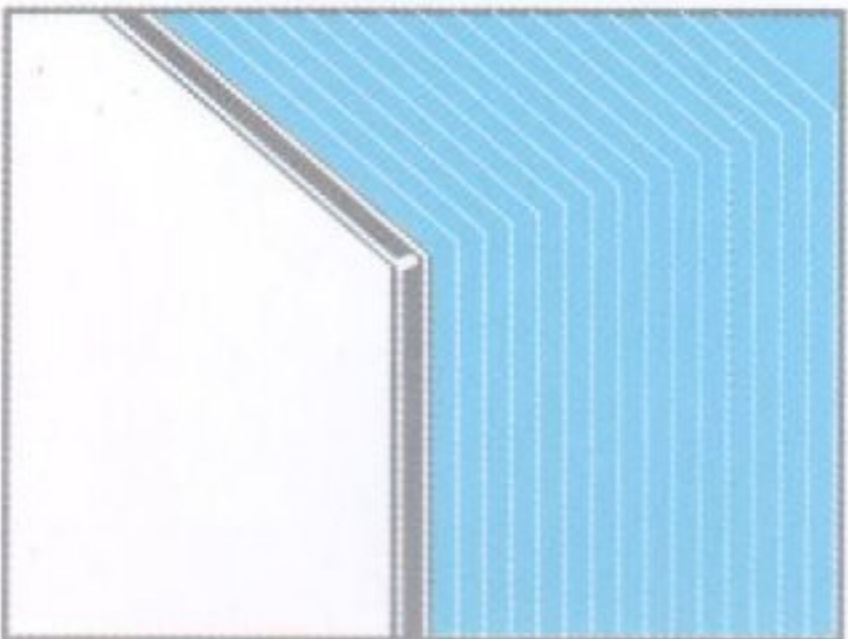
If V-shaped on the back by traditional grooving machines or hand-made/computer controlled grooving machines, the panel can be bent easily by hand. The polyethylene with the min thickness of 0.3mm should be laid on the bottom layer of the surface decoration.



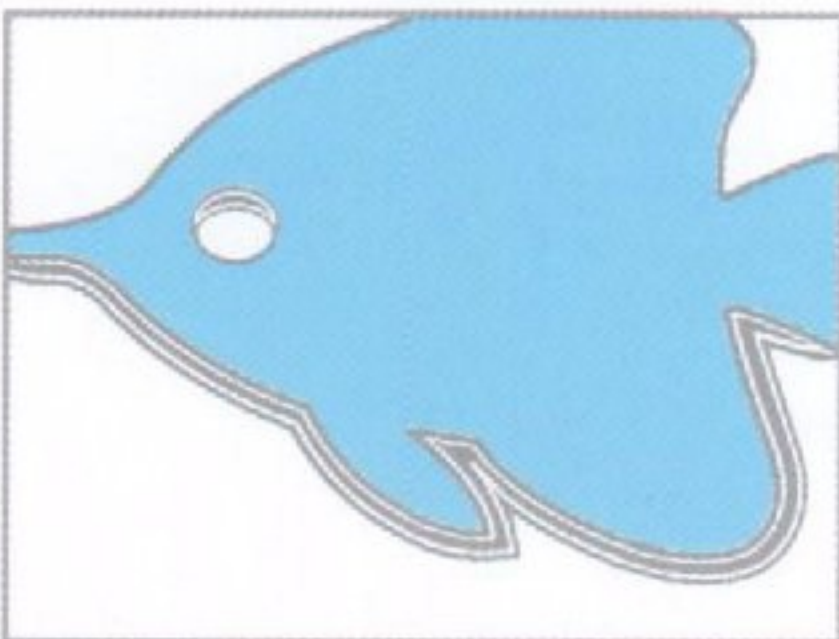
I BOND is very easy to drill. We recommend punching machines specially for aluminum and plastic drilling for better drilling results.



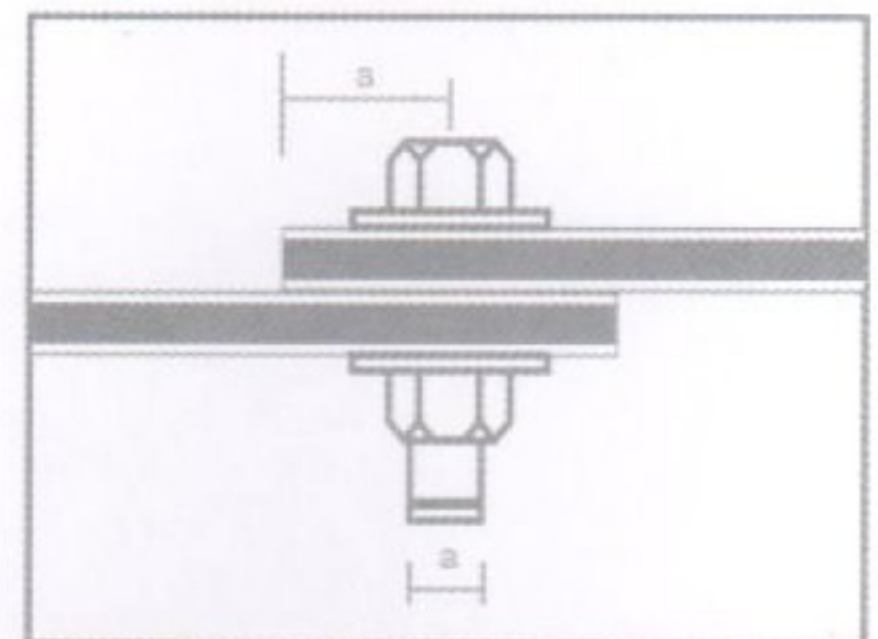
3-roller plate transformer, very suitable for panels of bigger bending diameter



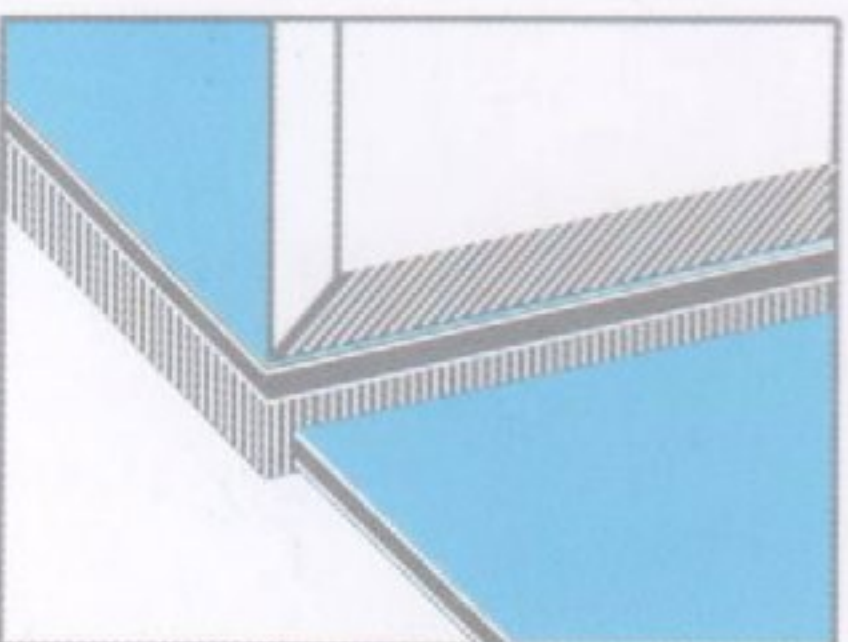
I BOND can be easily folded by being grooved on its back.



It's proper for I BOND to be pressed by hand or molding machine, and the processed polyeter can keep the aluminum layer from falling off. Pictures and images can be applied onto the protective film and the binding material, provided the panel is clean.



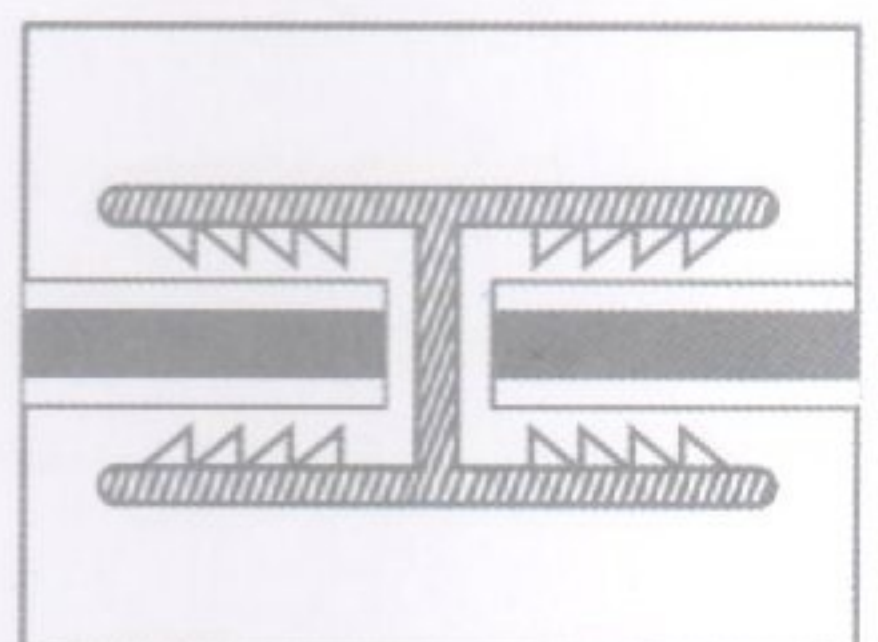
Use the biggest screwhead to screw up the 3mm and 4mm aluminum-plastic advertising panels. Formula  $E=2D$  is applied to calculate the final length of the fixed panels.



Operate with guillotine to ensure that the notch is at the right position.



Electrical Hot Gas Welding Equipment and Polyethylene Welding Rod are used.



Gripping Mechanism is used for connecting the panels.



## Product Application

The product can be applied to outdoor advertising, store poster, supermarket poster, decorative mural painting, exhibition, and signage.



Outdoor Advertisement



Interior Decoration



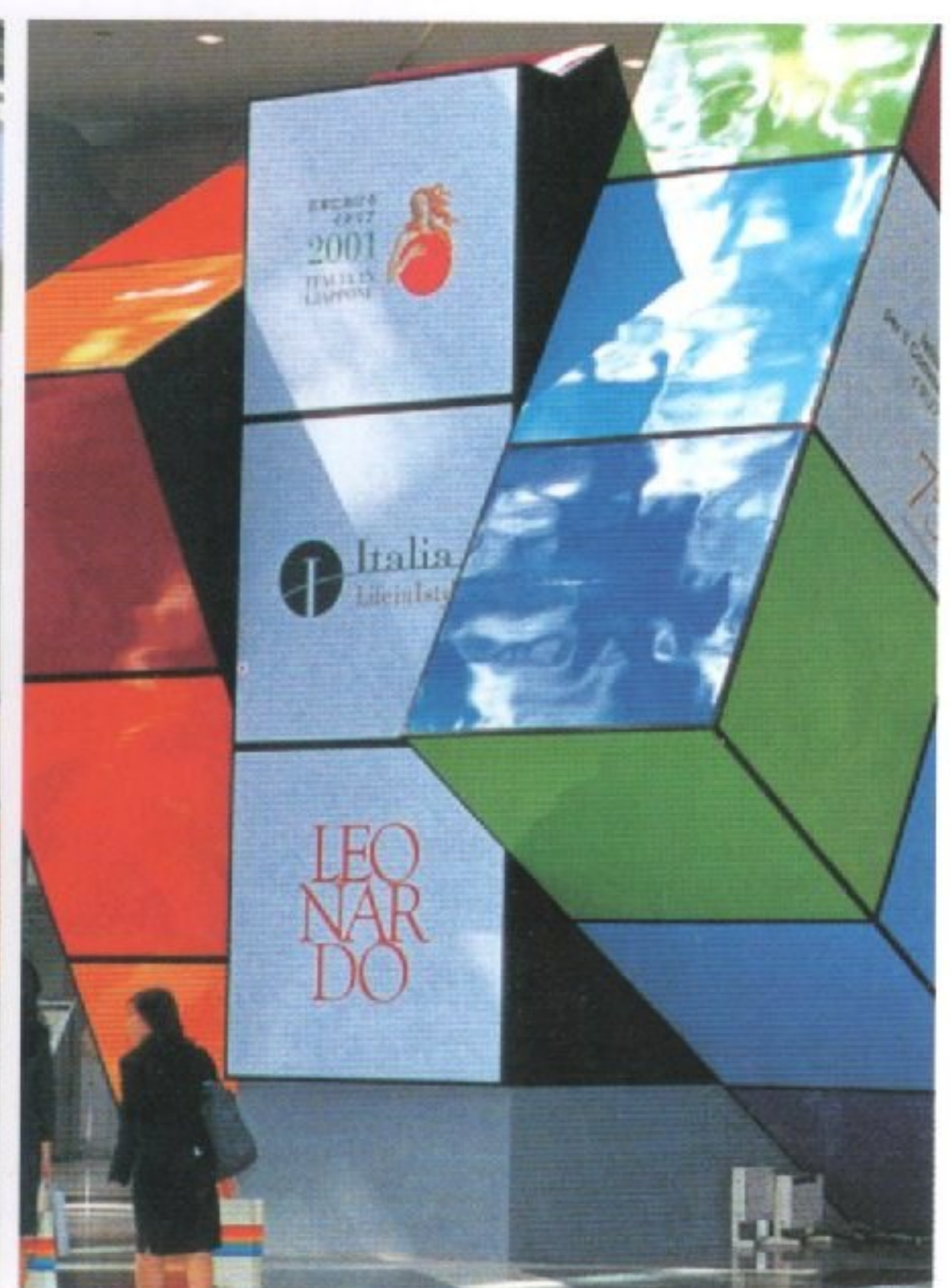
Supermarket Poster



Store Poster



Exhibition



Commercial Exhibition

Distributor

### PIVOT DECORATIVE MATERIALS CO., LTD.

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