



# SUSTAINABLE DISPLAY PANELS...

JUST ADD INK  
AND CREATIVITY

Specifications





# ULTRA BOARD UNIVERSAL Specifications

USING DUFAYLITE TECHNOLOGY



## Board Thicknesses and Sizes

Thickness	2440mm x 1220mm	3000mm x 1520mm
6mm	✓	X
10mm	✓	✓
18mm	✓	✓

Special thicknesses and sizes are available upon request

## Tolerances

Technical Feature	Tolerance
Length	+ / - 2 mm
Width	+ / - 2 mm
Total Thickness	+ / - 0.5mm
Diagonal Difference per Metre	+ / - 2 mm

## Performance Characteristics

Technical Feature	Standard	6mm	10mm	18mm
Weight kg/m <sup>2</sup> (50% RH 23°C)	ISO 536:1997	0.77	0.93	1.23
Bend Stiffness MD (Nm)	ISO 5628	Not tested	110	416
Bend Stiffness CD (Nm)	ISO 5628	Not tested	59	242
Puncture Test (LPET J)	DIN 53412.2	>7	>7	<7
Flat Crush Test Kg/m <sup>2</sup>		56,000	32,000	31,000



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# ULTRA BOARDGRAPHIC Specifications

USING DUFAFLITE TECHNOLOGY



## Board Thicknesses and Sizes

Thickness	2440mm x 1220mm	3000mm x 1520mm
6mm	✓	X
10mm	✓	✓
18mm	✓	✓



Special thicknesses and sizes are available upon request

## Tolerances

Technical Feature	Tolerance
Length	+ / - 2 mm
Width	+ / - 2 mm
Total Thickness	+ / - 0.5mm
Diagonal Difference per Metre	+ / - 2 mm

## Performance Characteristics

Technical Feature	Standard	6mm	10mm	18mm
Weight kg/m <sup>2</sup> (50% RH 23°C)	ISO 536:1997	0.91	1.07	1.37
Bend Stiffness MD (Nm)	ISO 5628	Not tested	110	416
Bend Stiffness CD (Nm)	ISO 5628	Not tested	59	242
Puncture Test (LPET J)	DIN 53412.2	>5	<5	<9
Flat Crush Test Kg/m <sup>2</sup>		56,000	31,000	28,000

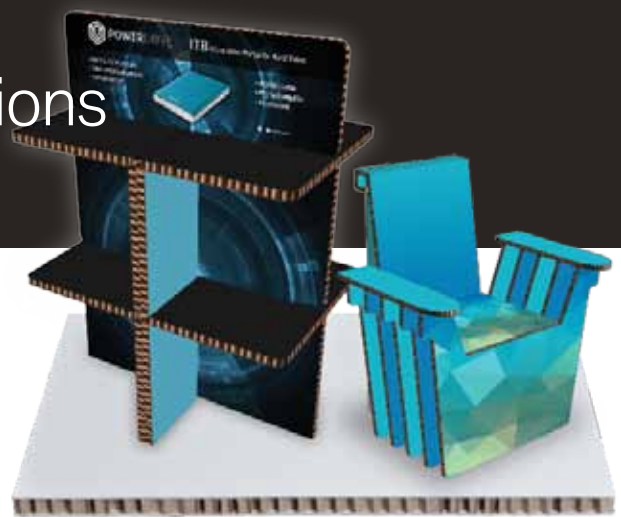
## Printable Surface

CIE Whiteness (D65-10°)	ISO 11475	120
Gloss 75°	ISO 8254-1	65%
Smoothness PPS S10µm	ISO 8791-4	1.3
Opacity	T 425	99%



# ULTRA BOARD<sup>3D</sup> Specifications

USING DUFAFLITE TECHNOLOGY



## Board Thicknesses and Sizes

Thickness	2440mm x 1220mm	3000mm x 1520mm
10mm	✓	✓
16mm	✓	✓



Special thicknesses and sizes are available upon request

## Tolerances

Technical Feature	Tolerance
Length	+ / - 2 mm
Width	+ / - 2 mm
Total Thickness	+ / - 0.5mm
Diagonal Difference per Metre	+ / - 2 mm

## Performance Characteristics

Technical Feature	Standard	10mm	16mm
Weight kg/m <sup>2</sup> (50% RH 23°C)	ISO 536:1997	1.22	1.6
Bend Stiffness MD (Nm)	ISO 5628	122	325
Bend Stiffness CD (Nm)	ISO 5628	68	178
Puncture Test (LPET J)	DIN 53412.2	<6	<12
Flat Crush Test Kg/m <sup>2</sup>		147,000	183,000

## Printable Surface

CIE Whiteness (D65-10°)	ISO 11475	120
Gloss 75°	ISO 8254-1	65%
Smoothness PPS S10µm	ISO 8791-4	1.3
Opacity	T 425	99%





# ULTRA BOARDFIRE Specifications

USING DUFAYLITE TECHNOLOGY

Fire Board has a Class 1 and Euro Class D surface spread of flame fire rating for the composite board.



## Board Thicknesses and Sizes

Thickness	2440mm x 1220mm	3000mm x 1220mm
6mm	✓	✓
10mm	✓	✓
18mm	✓	✓

Special thicknesses and sizes are available upon request

## Tolerances

Technical Feature	Tolerance
Length	+ / - 2 mm
Width	+ / - 2 mm
Total Thickness	+ / - 0.5mm
Diagonal Difference per Metre	+ / - 2 mm

## Performance Characteristics

Technical Feature	Standard	6mm	10mm	18mm
Weight kg/m <sup>2</sup> (50% RH 23°C)	ISO 536:1997	1.04	1.14	1.43
Bend Stiffness MD (Nm)	ISO 5628	Not tested	110	416
Bend Stiffness CD (Nm)	ISO 5628	Not tested	59	242
Puncture Test (LPET J)	DIN 53412.2	>4	<4	<9
Flat Crush Test Kg/m <sup>2</sup>		50,000	28,000	28,000

## Printable Surface

CIE Whiteness (D65-10°)	ISO 11475	115
Gloss 75°	IT480	18%
Smoothness PPS S10µm	ISO 5627	130 (Bekk)
Opacity	ISO 2471	≥94



# ULTRA BOARD POLYPROP Specifications

USING DUFAYLITE TECHNOLOGY



**Ultra Board Polyprop utilises Ultra Board structural honeycomb as the core material, which is made from 100% polypropylene. Polyprop Board facings are made from 100% polypropylene, and have a bright white, smooth and glossy surface. The polypropylene is resistant to water and most oils, greases and chemical products. The board is corona treated to enable it to receive ink.**

- Polypropylene does not contain any heavy metals or plasticizers and is chemically stable.
- Polypropylene uses relatively little energy in its production process, compared to other plastic materials.
- There are no harmful emissions during the production process of polypropylene.
- Polypropylene is one of the easiest plastics to recycle.
- It can be incinerated or disposed of in landfill site without any harm to the environment.
- When incinerated the polypropylene will only give off water vapour or carbon dioxide, which is converted by photosynthesis (chlorophyll).
- This also means the incinerators will use less energy we burying polypropylene compared to other plastics.





# ULTRA BOARD POLYPROP Specifications

USING DUFAYLITE TECHNOLOGY

Technical Feature		Tolerance
Length	ISO 15013	+ / - 3 mm
Width	ISO 15013	+ / - 2 mm
Total Thickness	ISO 15013	+ / - 0.3mm
Skins Thickness	ISO 15013	+ / - 0.05 mm
Grammage	ISO 845	+ / - 5%
Density	ISO 845	+ / - 5%
Diagonal Difference L ≤ 1000mm	ISO 15013	< 3mm
Diagonal Difference L ≤ 2000mm	ISO 15013	< 6mm
Diagonal Difference L > 2000mm	ISO 15013	< 10mm
Flexural Strength at Yield MD/CD	ISO 178	+ / - 0.4
Deformation at Yield	ISO 178	+ / - 0.3
Compressive Strength		+ / - 50 KPa
Dimension stability (1hr/90°C) MD	ISO 15013	< 0.5%
Dimension stability (1hr/90°C) CD	ISO 15013	< 0.1%
Sheet Planarity (20°C)		< 10mm
Coefficient of Linear expansion MD (25-90°C)		$X < 100 \mu / (^{\circ}K * m) + / - 20$
Coefficient of Linear expansion CD (25-90°C)		$X < 100 \mu / (^{\circ}K * m) + / - 20$
Average Thermal Conductivity (20°C)		0.08 W/mK
Surfaces resistance to thermal shocks UNI 9429 (each cycle: 4 hours at +50°C, 4 hours at -20°C and 16 hours at ambient temperature).	UNI 9429	15 cycles without showing superficial defects
Surfaces resistance to dry heating	UNI EN 12722	Resists up to 120°C without damage within the testing parameters
Surfaces resistance to humid heating	UNI EN 12721	Resists up to 100°C without damage within the testing parameters
Hardness (pencils method)	UNI EN 10782	Hardness equals a F pencil





# ULTRA BOARD POLYPROP Specifications

USING DUFAYLITE TECHNOLOGY

## Chemical features

Main component: Polypropylene mineral filled compound (PP).

Polypropylene guarantees waterproof properties and resistance to oil, fat, saline solutions, and also acidic and alkaline solutions at temperatures lower than 60°C. PP it is not resistant to substances with strong oxidizing effect.

Specifically Ultraboard Polyprop has been tested in conformity with UNI EN 12720 standard (16 hours) and it has been proven to be resistant to the following liquids/solvents without showing any visible change: Acetic acid, acetic, ammonia solution, citric acid, detergents, disinfectant, ethanol, ethyl-butyl acetate, olive oil, paraffin oil, sodium carbonate, sodium chloride, water and beer. The following liquids/solvents, instead, either left visible marks, visible in many different trajectories of observation, or slight changes in the surface's shine: coffee, stamps ink, tea and wine.

## Standard Additives

- AntiUV Masterbatch (base LDPE)
- Antistatic Masterbatch (base LDPE)
- Colour Masterbatch (base LDPE)
- Flame Retardant (base PP) Please note: to be tested and certified on the basis of national regulations upon customer's request.

**Corona treatment:** Superficial tension J 46 Dynes/cm (average duration 6 months)

## Suggested product use

Working temperature range is included between :  $-20^{\circ}\text{C} < T^{\circ}\text{C} < +60^{\circ}\text{C}$ . Polypropylene can withstand peak temperatures included between  $-20^{\circ}\text{C} < x < 120^{\circ}\text{C}$  without damage. Whilst designing and converting finished articles please mind the above mentioned coefficient of linear expansion.

## Regulatory Requirements

- Directive 94/62/CE and subsequent amendments
- Regulation 1907/2006/CE of 18th December 2006 (REACH).

Please note that this information regards the product as commercialized by Dufaylite and consequently any further treatment, handling, processing performed on this product by the Customer don't lie under Dufaylite responsibility. We would like to inform you that the use of the product referenced in this document within an industrial or commercial site doesn't exclude responsibility for assessing its technological fitness in relation to the end destination use.

