

**BLACKBURNS**  
**a-cast acrylic**  
BRIGHTER BY DESIGN

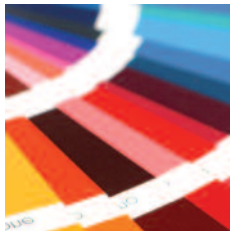
Full range of clear and colours available in panels or cut to size



**BLACKBURNS**  
**a-cast acrylic**  
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# Introducing Blackburns A-Cast® Acrylic Sheet

B R I G H T E R   B Y   D E S I G N



The current lifestyle fascination with high gloss is quite literally reflected in the wide range of Blackburns A-Cast® colours and finishes available.

Blackburns A-Cast® is the perfect material for designers looking to create a visual impact for a product, company or brand. Offering both form and function for applications across a number of sectors, Blackburns A-Cast® is a principal product for signage, point-of-sale and the shopfitting industries.

While Blackburns A-Cast® has been produced in over 3,000 colours and is available in a wide range of special finishes and effects, clear, white and opals remain a staple across all sectors, continents and cultures.

“the perfect material for designers  
...available in a wide range of special finishes and effects”



Disney · PIXAR

# Up

DISNEY DIGITAL  
**3D**  
IN SELECT THEATRES

# Blackburns A-Cast® Standard Range

CLEAR • GLASS-LOOK • COLOURS



Blackburns A-Cast® clear transmits 93% of visible light, offering a clarity that is superior to all other thermoplastic sheet materials and glass, with virtually no colour bias.

Also available in a green tint to provide the appearance of glass, Blackburns A-Cast® has the advantage of being half the weight and having five times the impact strength.

While a complementary range of transparent, translucent and opaque colours, produced from pure colour pigments, is available from stock, Blackburns A-Cast® sheets can also be colour-matched to a sample, Pantone or RAL reference, in order to meet a particular customer requirement or specification.

“five times the impact strength

...colour-matched from a sample, Pantone or RAL reference”



# Blackburns A-Cast® Light Management

BACK-LIT AND EDGE-LIT LIGHTING APPLICATIONS



With a range of light management products developed specifically to meet the changing needs of the display market and take advantage of LED technology, Blackburns A-Cast® products offer the user utility as well as decoration.

Our range of Blackburns A-Cast® opals have been optimised for back-lit lighting applications whilst also providing a clean, bright appearance during daylight hours when the product is not illuminated.

Blackburns A-Cast® edge-lit has been developed for use with an LED light source, in order to combine maximum brightness and even illumination with a low energy requirement and enable slim, elegant light box construction.

“optimised for back-lit lighting

...providing a clean, bright appearance during daylight hours”

# Blackburns A-Cast® Physical Properties

FOR GENERAL PURPOSE ACRYLIC SHEET

	Item	Test Method and Conditions	Unit	Test Result
General	Specific gravity	JIS K-7112	-	1.19
	Water absorption rate (24 hrs)	JIS K-7209 / ISO 62	Wt %	0.3 / 0.2
	Vicat softening point	ISO 306 (4)	°C	Min Ca 110
	Relative density	ISO 1183	-	1.19
Mechanical	Tensile strength	JIS K-7113 / ISO 527 (1)	MPa	79 / 75
	Tensile elongation	JIS K-7113 / ISO 527 (1)	%	2 ~ 7 / 4
	Flexural strength	JIS K-7203 / ISO 178 (2)	MPa	118 / 116
	Flexural modulus	JIS K-7203 / ISO 178 (2)	MPa	3200 / 3210
	Izod impact strength (notched)	JIS K-7110	KJ/m <sup>2</sup>	2
	Charpy impact strength (unnotched)	JIS K-7111 / ISO 179 (3)	KJ/m <sup>2</sup>	17 / 12
	Internal strain	ASTM D-638-67T	% - ¼"	<1
	Rockwell hardness	ASTM D-2240	D scale	90
	Pencil hardness	JIS D-0202	-	2 ~ 3H
	Specific surface resistance	JIS K-6911	-	>10 <sup>1</sup>
Optical	Total light transmittance	JIS K-7105 / ASTM D-1003	%	93 / 92
	Haze	JIS K-7105	%	0.5
	Refractive index ( $\eta_D^{20}$ )	JIS K-7105 / ISO 489/A	-	1.49



## Thermal

Heat conductivity	(20°C)	W/m.k	0.19
Specific heat capacity	JIS K-7123	KJ / kg. K	1.47
Deflection temperature under load	JIS K-7207	°C	100
Maximum continuous use temperature	-	°C	80
Flammability	ASTM D-635	IN/MIN	1.1
Linear expansion coefficient	JIS K-7197	K <sup>-1</sup>	7 x 10 <sup>-5</sup>

## Chemical Resistance

Acetic Acid, 5% (vinegar)	Ferric Chloride	Motor Fuel Benzene-free	Sodium Carbonate
Alum	Ferrous Chloride	Nickel Sulphate	Sodium Chlorate
Aluminium Chloride	Ferrous Sulphate	Nitric Acid, to 20%	Sodium Chloride
Aluminium Oxalate	Formic Acid, to 2%	Oxalic Acid	Sodium Hydroxide
Aluminium Sulphate	Glycerol	Petroleum Ether	Sodium Hypochlorite
Ammonia, Aqueous Solution	Glycol	Phosphoric Acid, to 10%	Sodium Sulphate
Ammonium Sulphate	Heptane	Picric Acid, 1% in water	Sodium Sulphide
Arsenic	Hexane	Potassium Dichromate	Stearic Acid
Arsenic Acid	Hydrochloric Acid	Potassium Carbonate	Sulphur
Battery Acid	Hydrofluoric Acid, to 20%	Potassium Chloride	Sulphuric Acid, to 30%
Butyric Acid, to 5%	Hydrogen Peroxide, to 40%	Potassium Cyanide	Sulphurous Acid, to 5%
Calcium Chloride	Iodine	Potassium Hydroxide	Sulphuryl Chloride
Calcium Hypochlorite	Magnesium Chloride	Potassium Nitrate	Tartaric Acid, to 50%
Citric Acid, to 20%	Magnesium Sulphate	Potassium Permanganate	Triethylamine
Copper Sulphate	Manganese Sulphate	Silver Nitrate	Tricresyl Phosphate
Cyclohexane	Mercury	Soap Solution	Urea, to 20%
Diethylene Glycol	Milk of Lime	Soda	Zinc Sulphate, solid
Ethyl Alcohol, to 15%	Monobromonaphthalene	Sodium Bisulphite	

Blackburns A-Cast® acrylic is resistant to the above chemicals and solvents. For a complete list of chemical compatibility, please contact your local Blackburns Service Centre (see back cover for details)

**AP-347 Translucent**

**AP-266 Translucent**

**AP-128 Translucent**

**AP-531 Transparent**

**AP-348 Translucent**

**AP-215 Translucent**

**AP-102 Transparent**

**AP-570 Transparent**

**AP-327 Translucent**

**AP-312 Transparent**

**AP-136 Translucent**

**AP-525 Transparent**

**AP-302 Transparent**

**AP-301 Transparent**

**AP-115 Translucent**

**AP-4022 Translucent**

**AP-324 Translucent**

**AP-835 Translucent**

**AP-502 Opaque**

**AP-4025 Translucent**

Blackburns A-Cast standard colours shown here are for illustrative purposes only and may differ due to the CMYK print process.

For a sample swatch, please contact your local Blackburns Service Centre.

(see back cover for contact details)

“produced in over 3000 colours

...create a visual impact for a product, company or brand”



design & artwork [www.digitalegg.net](http://www.digitalegg.net)

decp 3k0611

...for further info email [signs@blackburnsmetals.com](mailto:signs@blackburnsmetals.com)



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