

## Belbien™ Commercial Film

### What is it?

Belbien™ is best described as an architectural film made from PVC and other synthetic engineering plastics that is available in over 550 different designs. As a film it is designed to transform a surface appearance by applying it over the top of what is already in place eg; walls, ceilings, columns, laminates, benchtops etc...

The designs very accurately and efficiently simulate wood grains, metallics, leathers, marbles, two packs etc...

### What can it be used for?

The applications for Belbien™ are extremely diverse. The product is designed for use on interior and exterior surfaces and is fully conformable. The nature of the product allows for a very efficient, quick installation, and such is an ideal refit/refurbishment tool. The following lists only a few of the many possibilities for the range:

- Lift compartments and entrances
- Department stores
- Furniture
- Hotel Lobbies and Conference rooms
- Escalator panels
- Airports
- Marine vessels
- Store fixtures
- Reception counters
- Bathroom partitions
- Aircraft interiors
- Restaurants
- Passenger trains
- Office buildings



### What are the credentials of the manufacturer?

C.I. Kasei Co. Ltd. Is an all-around plastics processing manufacturer, the company combines a deep knowledge and experience in materials with broad mix of resin technologies to produce a diverse product lineup that has fulfilled the needs of the market since its foundation in 1963. The product mix has grown to include agricultural materials, specialty films, decorative materials, packaging materials, civil engineering materials, and electronic materials. C. I. Kasei is a wholly owned subsidiary of Itochu Corporation who has access to a vast global sales network. The company has an outstanding reputation for generating customer value through manufactured goods; and a corporate focus to contribute to the betterment of society and future generations under the corporate motto, "Manufacturing friendly to people, the earth and the future."



*The product we are recommending has been supplied on commercial jobs both within Australia and all over the world.*

### What do others say about our company?

We are the preferred supplier to the Intercontinental Hotels Group eg; Intercontinental Hotels, Crowne Plaza, Holiday Inn etc... and leading construction companies like Brookfield Multiplex

We have also recently supplied wallcoverings for a series of Aged Care projects undertaken by Croft Developments. Ramsay Croft had this to say about his work with Hume Internationale:

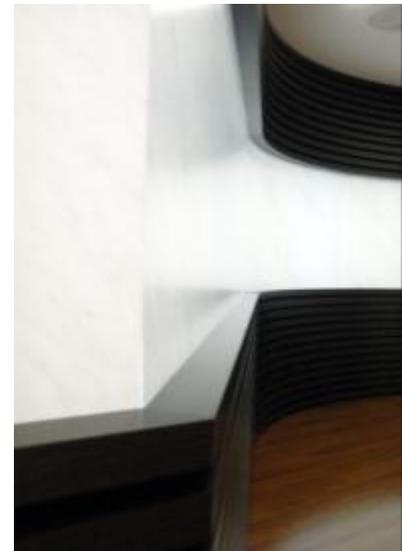
*"We have known and worked closely with Hume Internationale for the last 5 years, incorporating their wall vinyl product range in a number of our Aged Care facilities. Croft Developments have found Hume Internationale to provide **high-quality products accompanied by an exceptional level of service**. Hume have a large variety of product ranges to choose from with new ranges continuing to come out of Europe. **Their product is hard-wearing, and provides a unique finish to the buildings**. Wall paper is an additional cost to traditional painted plasterboard finish, however **the feedback and response from clients, employees, families and residents has been remarkable**. They run a transparent operation providing constant feedback on the products manufacturing, shipping and delivery status and work in partnership with us to meet our construction and delivery requirements. With a number of facilities successfully designed, constructed and still operating under our direction & ownership with Hume Internationale product installed in them, we are happy to provide our support in recommending Hume Internationale as a reputable, high-quality and trust-worthy company to explore and incorporate."*

### What do others say about Belbien™?

*"It was an ideal solution for our design because the curve and shapes of the design would have made it difficult to do with comparable materials within our budget.*

*It has worn very well. Three years later it still looks like new. We have the confidence that if part of it does get damaged we can repair it"*

Ceilidh Higgins Senior Interior Architect, GHD



*"I love it. Every pattern is a great representation of its natural equivalent. It's easy to use and extremely durable."*

Aaron Brown, General Manager, Premier Tint

### What does Belbien mean?

Belbien™ was first developed in 1977 by the CI Kasei Co. Ltd. The name Belbien™ actually derived from the French language means ‘Bel’ good and ‘bien’ beautiful. Since its inception Belbien™ has been marketed in countries throughout the world including Japan, Germany, USA, France, Canada, Great Britain, Taiwan, Korea, Hong Kong, Thailand, Singapore, and Australia.

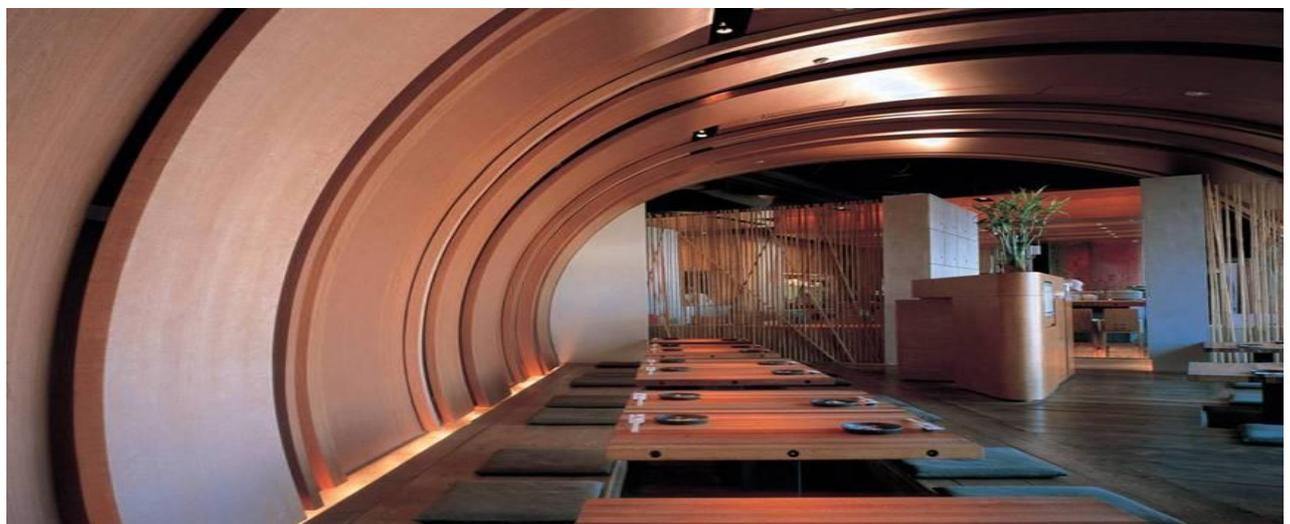
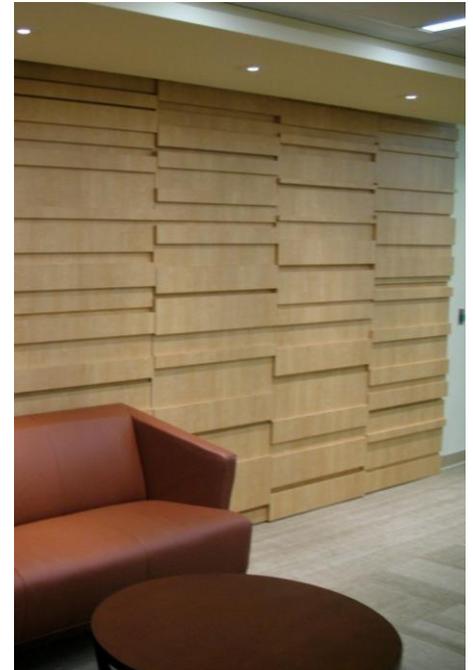
### How is the range categorised?

There over 500 Belbien™ patterns with more being added each year. They are classified into three basic categories including:

- Belbien [interior]
- Belbien EX [exterior]
- Belbien HS [high select/metallics]

### What are the key product features?

- **Lightweight:** 370gm per lineal m
- **Thin:** 0.15mm thick. It is the same thickness as a coat of paint.
- **Strong Bonding:** The pressure sensitive adhesive system cures to ensure a very strong bond to the surface after 8-12hrs. This allows Belbien™ to be installed in high risk areas such as train stations, shopping malls, bathroom partitions etc...
- **Flexible.** Can be easily tailored up to 180 degree angles
- **Conformable.** The range can also be stretched to conform to three dimensional surfaces [up to 20-30% stretch]
- **Durable.** Belbien™ is highly durable and can be applied to surfaces where abrasion is a concern.
- **Suitable for Internal or External use.** The range has designs suitable for internal and external use.
- **Fire Rated.** In Australia and NZ Belbien™ has been tested by the CSIRO in accordance with standards AS/NZS 1530.3:1999 and AS/NZS 3837. Certificated are available on request.
- **Marine Rated for ship building interior use.**
- **Stain and Solvent Resistant.** Belbien™ offers excellent stain resistance to many substances.
- **Easily to repair.** Belbien™ is easily repaired on site in a very short period of time.



### What are the material specifications?

**Design codes:** TBA

**Roll width:** 1220mm

**Roll Length:** 50m

**Thickness:** 0.15mm excluding the release paper and adhesive system

**Weight:** Less than 370g per lineal m

**Colourfastness:** Sunshine Carbon Arc Weathering Test (ISO 4892-4)

EA,EK,ES,EW ( Belbien EX) no appreciable change after 5000hrs

All other codes no appreciable change after 300 hrs.

**Adhesion Durability after heating:** No adhesion degradation after being left in an atmosphere at 65<sup>0</sup> C for 1 month.

**Adhesion Stability under moisture:** No adhesion degradation after being left in an atmosphere at 45<sup>0</sup> C and RH at 95% for 1 month.

**Anti-crack under low temperature:** No crack observed after being left in an atmosphere at 0<sup>0</sup> C for 24hrs.

**Dimensional Stability:** Cut width expansion is 0.3mm after 5 hrs at 100<sup>0</sup> C.

**Heat Cycle Durability:** Neither delamination or colour change is observable after testing at -20<sup>0</sup> C and 70<sup>0</sup> C for 20hrs [2hrs x 10 tests]

### Chemical/Solvent Resistance

Belbien demonstrated when soaked in the following for 6hrs:

- No change: Petroleum Benzene; Ethyl Alcohol; Heptane, N-Hexane, Ammonia water; 10% HCl; 10% NaOH
- Change on surface: Tolulene; Ethyl Acetate; Methyl Ethyl Ketone.

**Stain Resistance:** Is stain resistant to the following reagents after direct contact for 24hrs

- |                             |                           |
|-----------------------------|---------------------------|
| 1. Coca Cola                | 8. Urine                  |
| 2. Wine                     | 9. Facial Soap solution   |
| 3. Ketchup                  | 10. Body Soap solution    |
| 4. Vinegar Solution         | 11. Household use ammonia |
| 5. Soy Sauce                | 12. 10% HCL               |
| 6. Water-Ink marker [Black] | 13. Formalin              |
| 7. Blood                    | 14. Oxygenated Water      |

**Washability:** Fully washable and scrubbable. Stains can be removed using a soft cloth and household cleaner such as dishwashing detergent. In other cases ethyl alcohol can be used. For severe stains it is possible to use lacquer thinner or acetone in some instances.

**Abrasion Resistance:** Abrasion ends at 7000 cycles [Taber Abrasion Test].

### Certified for Shipbuilding Interior Use:

- CE Mark – MED-B-5696 [Belbien except for CM,FM,EA,EK,ES,EW,MT,SG]
- DNV – F-19324 [Belbien except for CM,FM,EA,EK,ES,EW,MT,SG]

**Fire and Smoke Ratings:** rated to very high standards carrying class A fire and smoke ratings.

- UL-723(ASTM E-84) Class A (Class 1) Belbien except for MT and SG

- In Australia and NZ Belbien™ has been tested by the CSIRO in accordance with standards AS/NZS 1530.3:1999 and AS/NZS 3837. Certificated are available on request.

### **What is the commercial product warranty?**

[The following is an extract from the detailed product warranty. The full warranty is available on request.]

C.I. Kasei. Co., Ltd. Offers warrants that Belbien will be manufactured free from defects and will remain free from defects for a period of 5 years from the date of installation completion, unless exposed to excessive abuse, or abnormal conditions such as floods, fire or other acts of God. The installer access liability for any and all installation claims which are not attributable to defective materials and for procedures not performed according to the manufacturers guidelines. The warranty is not assignable and extends only to the purchasers who are the owners of the product at time of installation

