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WAS TO SEE

The MACRO of Maica Laminates: We MANUFACTURE

It all began in 1968. Two people came together with one idea in mind, and a new factory was built in the Mak Mandin Industrial Estate, Butterworth. It was one of the first factories in the industrial estate and still stands with full grace even today as one of the most preferred high pressure decorative laminates manufacturer in the world.

The name Maica is familiar in the building and construction industry. Carpenters and contractors associate the products with superior quality, and they enjoy great savings with the maintenance of their carbide or diamond tip saw due to the quality of maiProducts. Interior Designers associate Maica with everlasting trends and designs, with its fine collection of designs; not fancy, but designs that stay trendy for generations. Architects and Developers associate Maica with trusted quality, as Maica delivers products to help establish and quality maintain the superior

reputation of our architects and developers in the industry. How do we achieve all these?

The answer is simple. We are committed to quality. We listen to our customers' needs and the needs of the public consumer. We believe in the culture of co-existence and cooperation.

We believe in you.















maiLaminate

maiLaminate, or affectionately referred to as HPL in the market, is specifically determined in Part 3 of EN438, for "Classification and specifications for laminates less than 2mm thick intended for bonding to supporting substrates". Under this definition, it means that maiLaminate is a single-sided decorative surface product suitable for interiors furnishing use.

- EN438 Part 3
- GREENGUARD, GREENGUARD GOLD
- Singapore Green Label
- maiAnti-Bacteria
- · maiAnti-Fungi
- maiFood Contact Safety
- maiAnti-Scuffing for high gloss finish









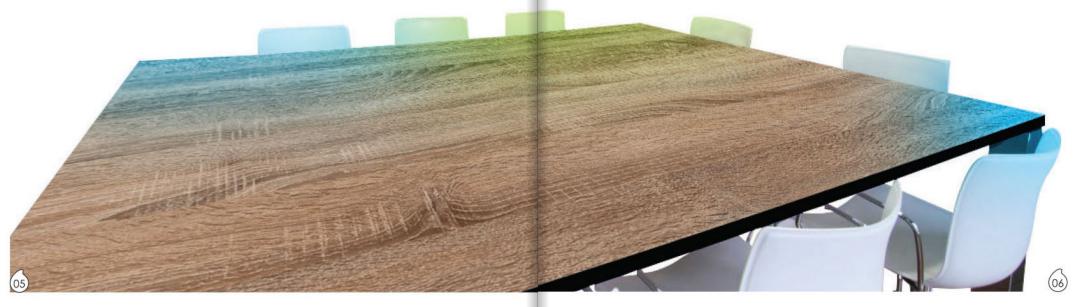
maiCompact, sometimes known as phenolic board in the market, is determined in Part 4 of EN438 as "Classification and specifications for Compact laminates of thickness 2mm and greater". This means that maiCompact may be single or double sided, however, we would advise for double-sided decorative paper compact laminate for the panel's stability.



- EN438 Part 4
- GREENGUARD, GREENGUARD GOLD
- Singapore Green Label
- maiAnti-Bacteria
- · maiAnti-Fungi
- maiFood Contact Safety
- maiTermite Resistance















maiConcept maiConcept is a custom print design laminate that can be made either as HPL or compact, depending on the needs of the application. Customers may use maiConcept HPL for cabinets, furniture and other normal applications with exact similarity to the applications of HPL, while maiConcept compact may also be used for any other same applications maiCompact applications.

- EN438 Part 3 for HPL, Part 4 for Compact; except for resistance to boiling water test under ANSI/NEMA LD3 compliance
- GREENGUARD, GREENGUARD GOLD
- · Singapore Green Label
- · maiAnti-Bacteria
- · maiAnti-Fungi
- maiFood Contact Safety
- maiAnti-Scuffing for HPL high gloss finish
- maiTermite Resistance for Compact



















maiLab Chem

maiLab Chem is Maica's chemical resistance grade laminate, with its surface chemical resistance attributed to the Electron Beam Curing (EBC) technology. Its physical composition adheres to the EN438 Part 4 for compact laminates, which makes it durable to different fabrications to meet the requirements of chemical laboratories in hospitals, schools and universities.

- High chemical resistance with 91 chemicals test
- Tested also based on requirements of SEFA 8.1
- Surface EBC Technology
- EN438 Part 4 physical composition
- GREENGUARD, GREENGUARD GOLD
- Singapore Green Label
- maiAnti-Fungi
- maiTermite Resistance







maiTop
maiTop is Maica's specialty kitchen product. Post-formable maiLaminate is combined with particle board to create a highly affordable kitchen top product, suitable for use in space constrained residential and office pantry. Create a sink-hole and mount the sink, seal it well with a reliable sealant, and you will have reliable kitchen top that can last for a long time.

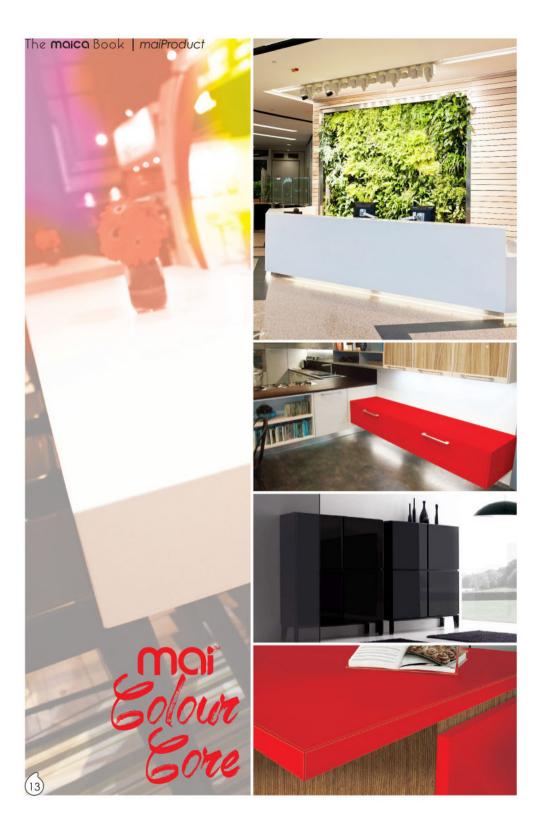
- EN438 Part 3 for the post-forming HPL top
- · GREENGUARD, GREENGUARD GOLD
- Singapore Green Label
- maiAnti-Bacteria
- · maiAnti-Fungi
- maiFood Contact Safety
- Water resistance for particle board substrate











maiColour Core

maiColour Core is classified under the EN438 Part 9, also known as the alternative core under the European Standard definition. It can be used for normal applications similar to those in HPL, but does not come with post-forming capabilities as there are some slight differences in the materials used.

- EN438 Part 9
- GREENGUARD, GREENGUARD GOLD
- Singapore Green Label
- maiAnti-Bacteria
- maiAnti-Fungi
- maiFood Contact Safety
- maiAnti-Scuffing for high gloss finish











maiRadiance:

Pearlescent laminate, classified under the EN438 Part 8, is known as maiRadiance in Maica Laminates. The pearlescent laminate is available in different finishes for different feel and effect, and may be used as vertical or horizontal application despite being a pearlescent material.

maiSpecifications:

- EN438 Part 3 for HPL, Part 4 for Compact
- GREENGUARD, GREENGUARD GOLD

- Singapore Green Label
- maiAnti-Bacteria
- · maiAnti-Fungi
- maiFood Contact Safety
- maiAnti-Scuffing for HPL high gloss finish
- maiTermite Resistance for Compact



maiMetal

maiMetal is classified under EN438 Part 8. It comes with a real metal foil for its surface to create the metal effect. maiMetal is for use in vertical surfaces.

- EN438 Part 8
- GREENGUARD, GREENGUARD GOLD
- maiAnti-Fungi
- maiFood Contact Safety









The MICRO of: EN438 Maica Laminates: EN438

The European Standard EN438 is recognized by all CEN members. who are bound to comply with CEN/CENELEC Internal Regulations. CEN and CENELEC are the business catalysts in Europe, and they provide platforms for the development of European Standards and other technical takina into specs. consideration the European economy in global trading, the welfare of European citizens and the

Maica abides by the requirements of the EN438 to ensure quality products manufacturing assurance for the benefit of our worldwide consumers.

environment.

- EN438 sets stringent limits to ensure that products are manufactured to protect the consumer for quality assurance and responsible manufacturing.
- Priorities on product quality, not only aesthetics.

- Full compliance to EN438 clearly states that HPL does not contain dangerous substance, specifically pentachlorophenol, asbestos, halogens or heavy metals (Antimony, Barium, Cadmium, Chromium III and IV, Lead, Mercury, Selenium).
- CEN: European Committee for Standardization
- ** CENELEC: European Committee for Electrotechnical Standardization
- *** CEN Member Countries: Austria. Bulgaria, Croatia, Belgium, Cyprus. Czech Republic. Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France. Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Poland, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom.









The MICRO of Maica Laminates: maiAnti-Bacteria

Maica maiProduct are endowed with maiAnti-Bacterial qualities with on-demand delivery since 1968 and standard delivery since 2012.

Bacteria exist everywhere. Scientists say that our body alone has trillions of bacteria and other microorganisms. The number of bacteria outnumbers our human cells 10 to one. This means that our human body itself is a universe, one so diverse and complex, yet complete and functioning on its own without our conscious knowledge.

- 99% reduction of bacterial activities in laboratory environment, tested by external 3rd party laboratory using the JIS Z 2801:2012 standard for 5 types of bacteria:
 - a. Staphylococcus aureus
 - b. Escherichia coli
 - c. Salmonella chloeraesuis
 - d. Methicillin-resistant staphylococcus aureus

- e. Pseudomonas aeruginosa
- 95% reduction of bacterial activities in real live environment.
- Achievable through silver ion technology, the same technology used by hospitals and in clinical settings.
- Helps to reduce the microbial activities in other untreated objects within the same environment.

- Hospitals
- Public facilities
- Clinics
- Furniture
- Laboratories
- Kitchen
- Schools
- Toilet cubicles
- Healthcare centres
- and doorsSports centres





1 Brand Quality





The MICRO of. Maica Laminates: maiAnti-Fungi



Maica products are also endowed with maiAnti-Fungi properties.

- Strict adherence to the EN438 ensures manufacturing with high heat and high pressure, releasing moisture and compressing raw materials to a very high density. There is no air or water within the build-up of the panel. The absence of these two factors automatically stunts the growth possibility of fungi on the panels.
- The anti-microbial silver ion technology also contributes to the elimination of fungi on the panels.
- Fungi elimination means minimization of chances for respiratory contact with fungi vegetative spores and no need to worry about the emission of mycotoxin from fungi.

- Tested for 5 types of fungi:
 - a. Aspergillus niger
 - b. Penicillium pinophilum
 - c. Chaetomium globosum
 - d. Gliocladium virens
 - e. Aureobasidium pullulans

- Hospitals
- Clinics
- Laboratories
- Schools
- Healthcare centres
- Public facilities
- Furniture
- Kitchen
- Toilet cubicles and doors
- Sports centres







The MICRO of MaiTermite Maica Laminates Resistant

Termites are building's worst enemies! The National Pest Management Association in USA estimates that termites cause \$5 billion in property damage each year. Termites can sink their teeth on almost any material that is softer than their hardened mandibles, including drywall, foam, plastics, and even thin sheets of lead.

It is a common misconception that termites are eating wood. In reality, they are eating the cellulose that the wood is made of. But while they do consume cellulosic materials. termites cannot retrieve any nutrition without the assistance of bacteria, funai and protozoa to break down the cellulose and release the nutrients that can be absorbed by the host termite. In other words, bacteria, funai and termites are good friends with each other. Since maiCompact is anti-microbial, termites are incapable of destroying the laminates.

- · Laboratory test using the standard ASTM D3345-08
- · Field test using FRIM Working Procedure PK A1 test
- Termite specie used Subterranean Termite, the worst termite for buildings

NOTE: Termites are capable of emitting methane, one of the most important non-CO2 greenhouse gases, and is responsible for nearly as much global warming as all other non-CO2 greenhouse gases put together.

Advantages of Applications:

- Toilet Cubicle Hospitals and Panels
- Sports facilities facilities cabinets
- Public facilities • F&B Table tops • Remote area

health care

- Kitchen tops
- facilities





















The MICRO of Maica Laminates:

maiFood Contact Safety



The most reliable test that determines and ensures that there is none or very minimal transfer of building materials into food stuff, with Certificate of Compliance upon completion of the full test.

No	Category / Materials	Acid	Fats
a.	Formaldehyde (from Melamine- formaldehyde resin)	0.034 mg/dm ²	Not determinable < 0.02 mg/dm²
b.	Melamine (from Melamine - formaldehyde resin)	Not determinable < 0.01 mg/dm²	Not determinable < 0.01 mg/dm²
C.	Silver (Ag) (from anti - microbial properties)	0.01 mg/dm ²	N/A
d.	Toluene sulphonic acid (from printed surfaces of maiLaminate & maiCompact)	N/A	Not determinable < 0.001 mg/dm²

All kinds of foodstuffs may safely be prepared and treated on maiLaminate and maiCompact, provided that hygiene regulations are not violated.

- F&B outlets Healthcare
 - Healthco facilities
- Hospitals canteen
- Schools & colleges canteen
- Factories canteen
- Nursery and
- Kitchen kindergarten













The MICRO of Maica Laminates: GREENGUARD & GREENGUARD GOLD

There is a definition by the California Department of Pesticide Regulation which states that "VOC means any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmosphere photochemical reactions". A complete list of identified VOC released by Ontario's Ministry of Environment has 636 entries. VOC may come from the environment itself, or may come from activities or products created by human beings.

UL Environment's GREENGUARD specializes in the task of helping manufacturers create, and for buyers to identify, interior products and materials that have low chemical emissions to improve air quality.

Maica has GREENGUARD and GREENGUARD GOLD Certificates, which complies with the requirements of green buildings for indoor air quality.

- Products with GREENGUARD are suitable for use in offices, shopping malls, and other general public places.
- Products with GREENGUARD GOLD are especially important for environment where children and the elderly frequent.
- All Maica products are compliant to these certificates.













- Hospitals
- Healthcare facilities
- Nursery
- Kindergarten and schools
- Old folks homes
- Offices
- Bedrooms
- Any confined
- garten areas chools



1 Brand Quality





The MICRO of Maica Laminates: Singapore Green Label

Look at Maica's maiCatalogues. The Green Labelling from Singapore stated Certificate No: 035-034. 035 stands for the category of "Made from renewable / sustainable materials".

- Virgin pulp materials from non-virgin plantations / forestry.
- No Halogenated solvents
- · No Aromatic Solvents
- No heavy metal contents (Pb, Cd, Hg, Cr)



Certification No.: 035 - 034

MADE FROM RENEWABLE / SUSTAINABLE MATERIALS

Certified under the Singapore GreenLabel

maiLaminate TM & maiCompact TM







The MICRO of Maica Laminates: maiAnti-Scuffing

- High reflective value, high glossiness.
- Micro-solid particles to increase durability and creates slipperiness to refuse molecular grip upon surface contact to prevent scuffing lines.













The MICRO of Maica Laminates: maiChemical Resistance For maiLab Chem

maiLab Chem using EBC Technology creates panels with high chemical resistant properties for professional laboratory applications.

- High chemical resistance
- · Easy to maintain
- Easy to fabricate

- Science laboratories
- Hospital testing laboratories
- School laboratories









A 2015 Innovation of Maica Laminates

The MICRO of Maica Laminates: mailnvisible—T

Maica's new mailnvisible-T is applied to a selective range of designs, using a special electron beam curing technology. This technology requires multi-layer coating of electron beam-curing resins applied to the surface decorative paper. The curing of the resin is done with a precisely controlled electron beam, causing the cross-linkage of the resin molecules to create a perfectly closed surface structure. This results in the following attributes to the products:

- Anti-Finger Print
- · Highly resistant to water
- · Extremely easy to maintain
- · Scuff resistance



Advantages of Applications:

 Any Horizontal and Vertical Applications

The MICRO of Maica Laminates: maiGreen, maiHealth

GBI Applicable points

Maica is an Industry Member of the Malaysia Green Building Confederation (MGBC) with membership number IDP 0077. Being highly supportive of the building and construction industry's green efforts, Maica sent our products certificates and test reports for evaluation under the Green Building Index (GBI) Tools.

The chart on the right is based on results as at June 2015. For updates of the applicable GBI Credits, please refer to Green Pages Malaysia directory. Maica will provide the necessary certificates and test reports for project submission to support the respective GBI Credit claims.



maiLaminate & maiCompact

APPLICABLE GBI CREDITS			
NRNC	EQ4		
NRNC (DC)	EQ4		
NREB	EQ4		
NREB (DC)	EQ4		
INC	EQ4		
IEB	EQ4		
RNC	EQ2, EQ3		







maiWoodgrain

A new collection of maiWoodgrain to satisfy your love of nature.

Available Dimensions:

(4')

4ft maiWoodgrain thin laminates (HPL)

• Size: 1220mm x 2440mm

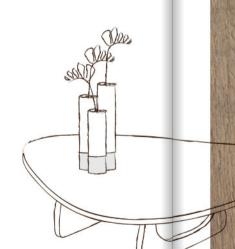
• Thickness: 0.7mm ~ 1.0mm

6 6

6ft maiWoodgrain compact laminates

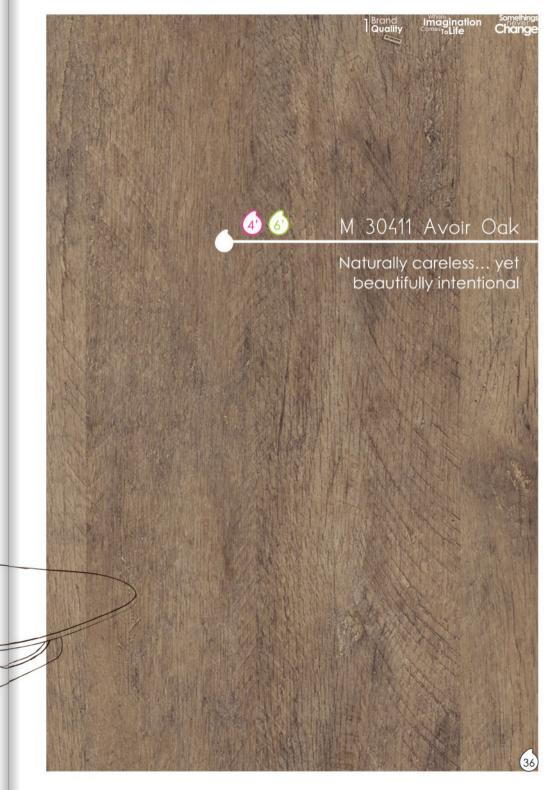
• Size: 1850mm x 3670mm, 1850mm x 2450mm

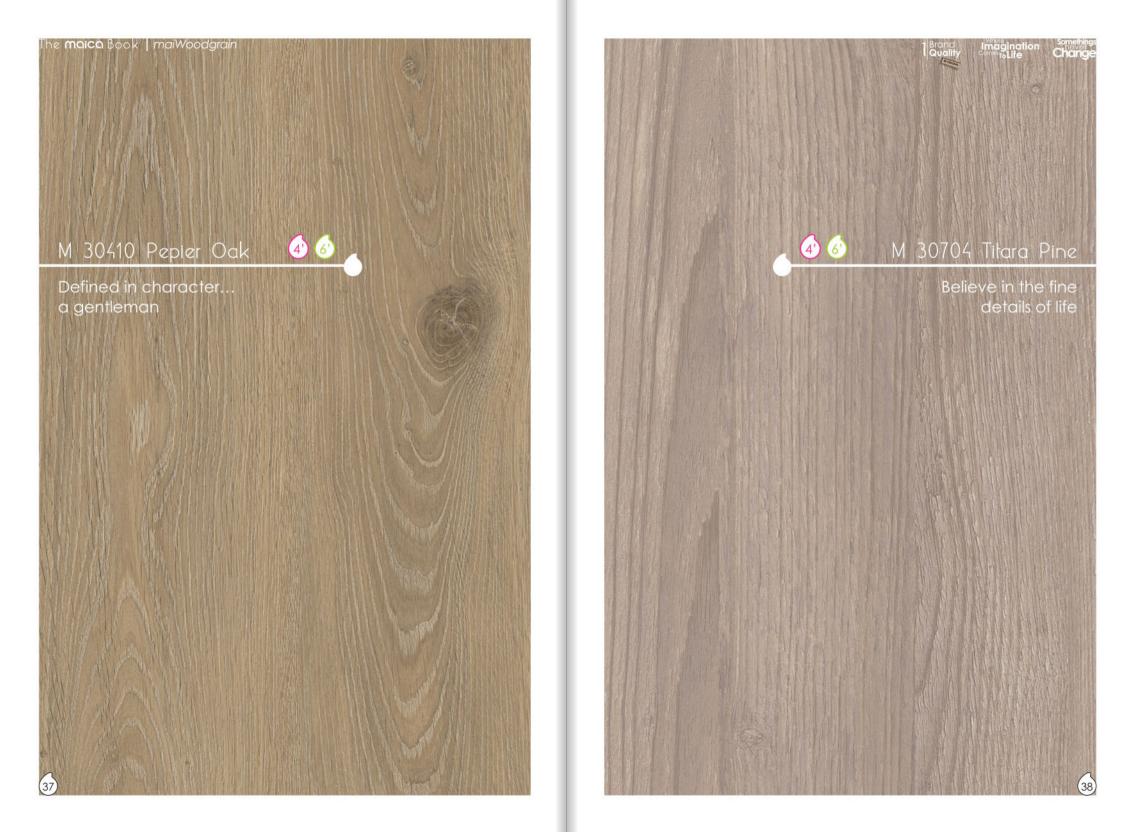
• Thickness: 3mm ~ 25mm



Disclaimer:

There may be slight colour variations in the colours and designs in this book compared to the original products. Please refer to our sample swatches for an accurate representation of our colours and designs. Kindly reconfirm your colours, designs and finishes with our customer service representatives before placing your orders.

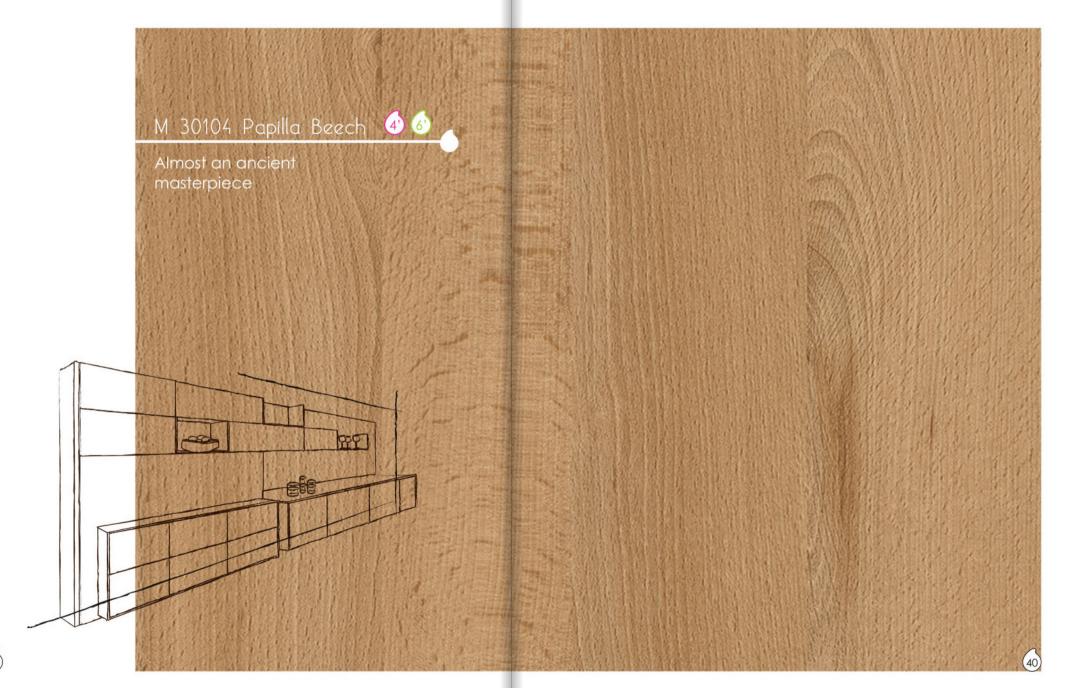






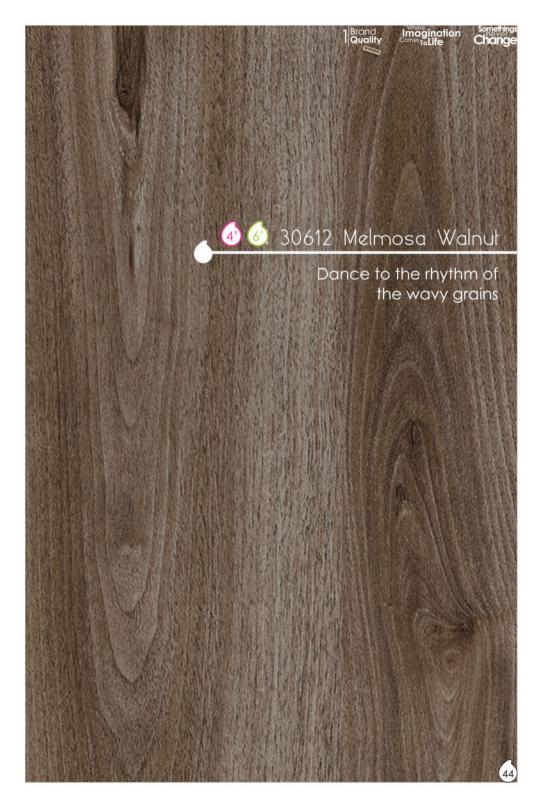










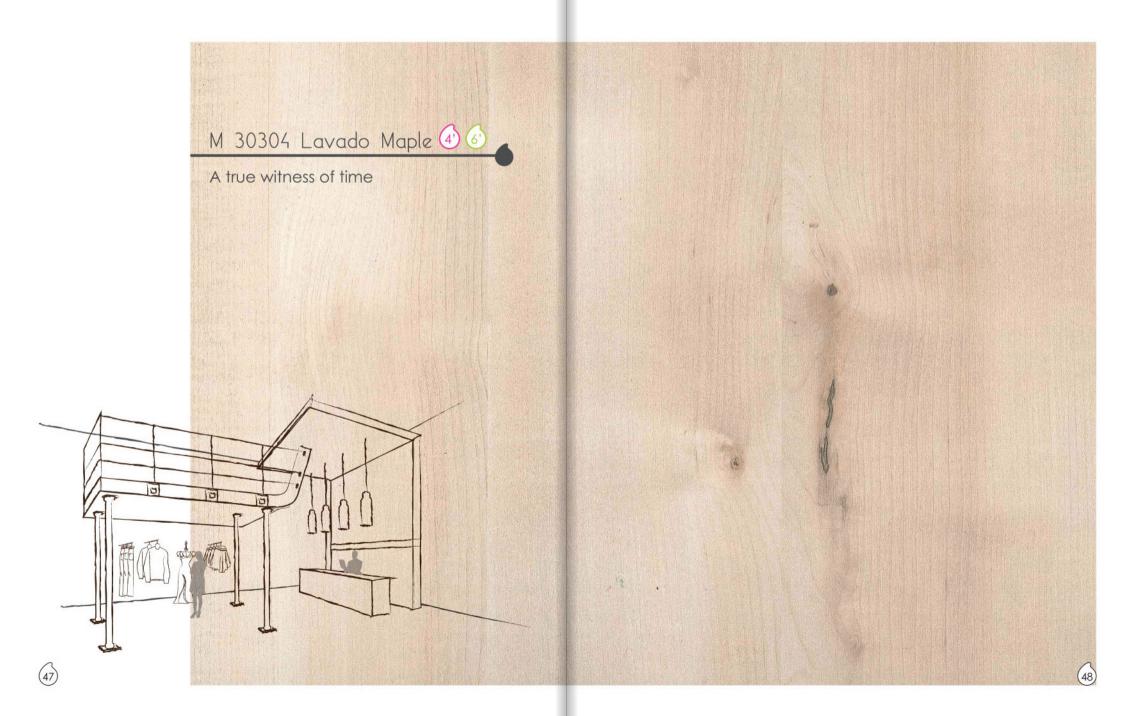


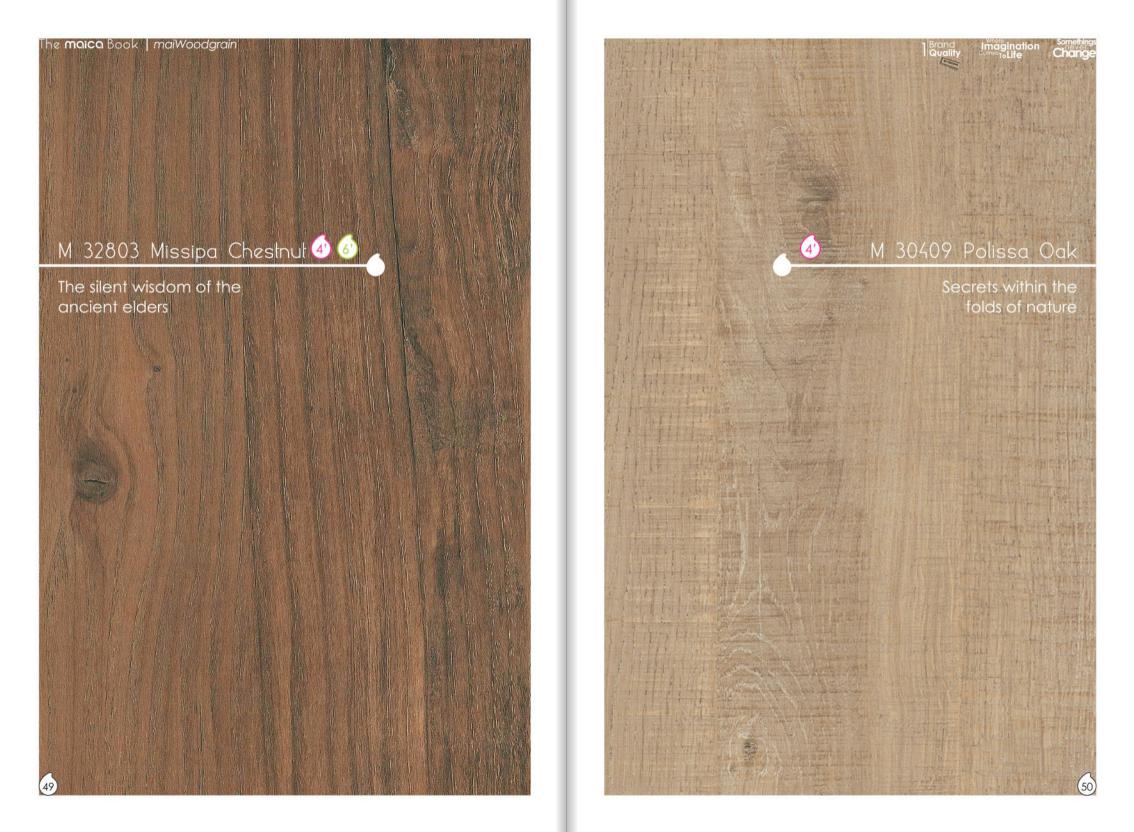








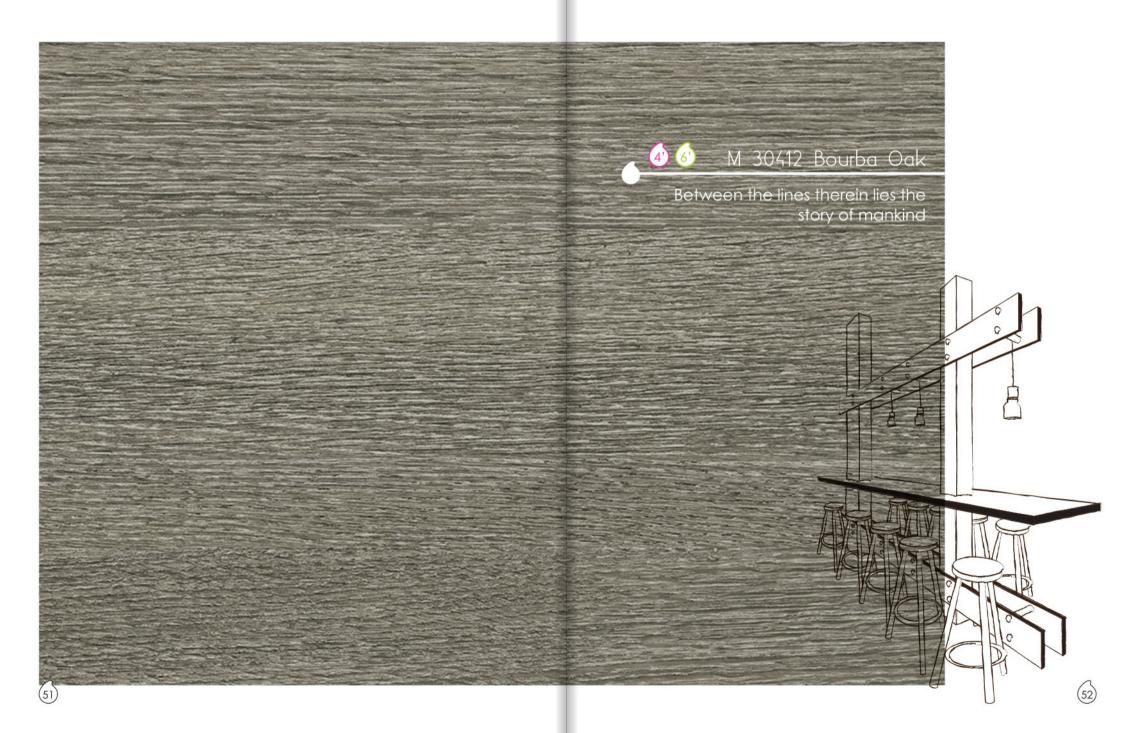












M 54046 Desert Guide









maiConcept

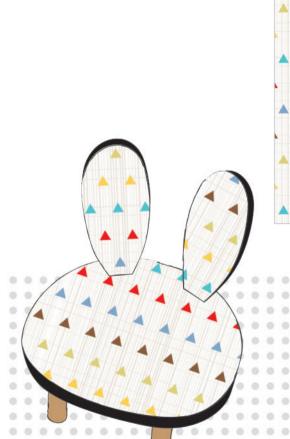
Creativity is unlimited. There can be so many stories to be told through a masterpiece. The new maiConcept speaks of character in ways that incorporate our culture and traditions... without sacrificing modernization for that timeless enchantment.

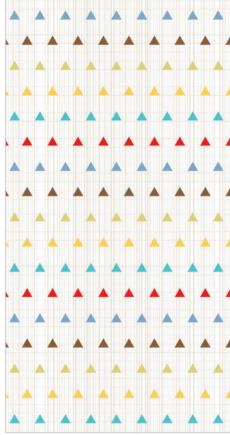
Available in 1220mm x 2440mm

- As thin laminates (HPL) 1.0mm thick
- As compact laminates 3mm ~ 25mm thick

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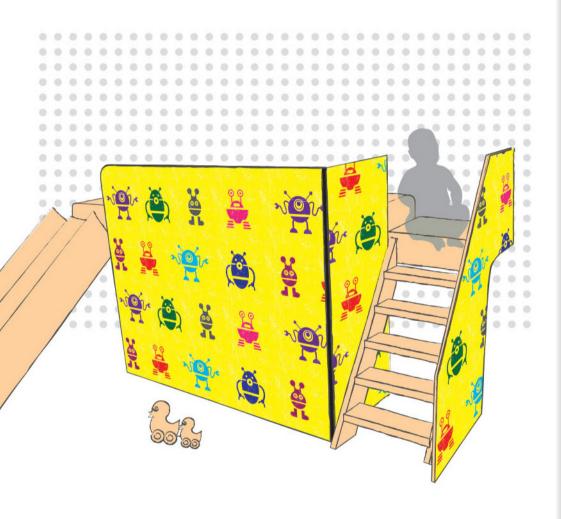
















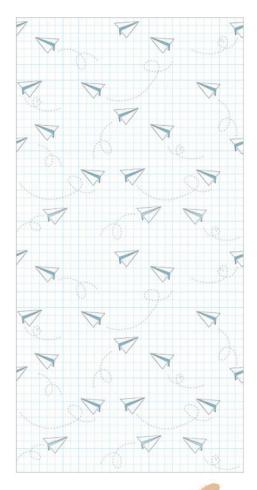












M 54043 3-Unblind-mice

M 52063 Aerochart



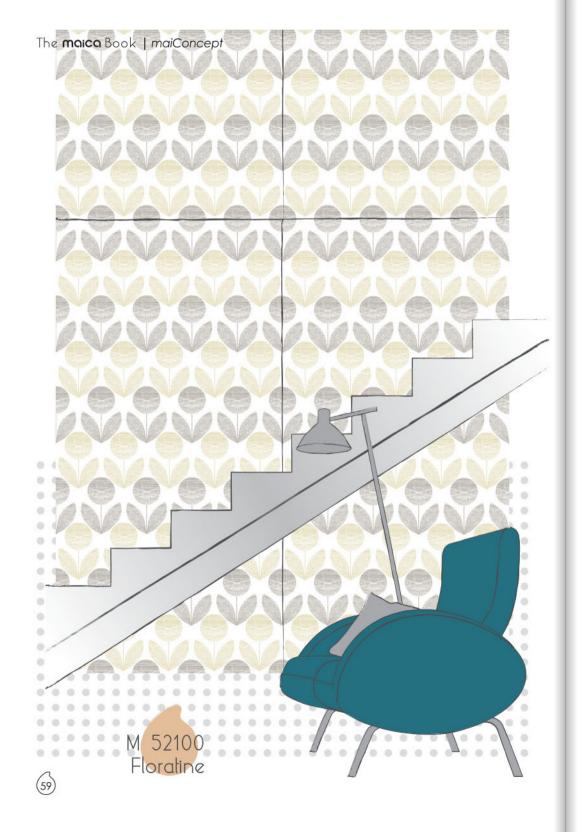








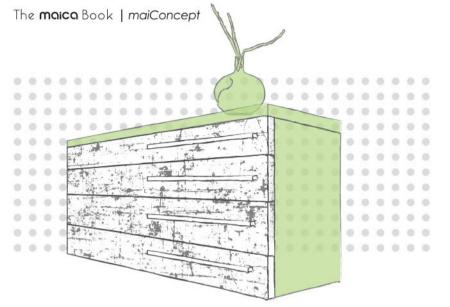


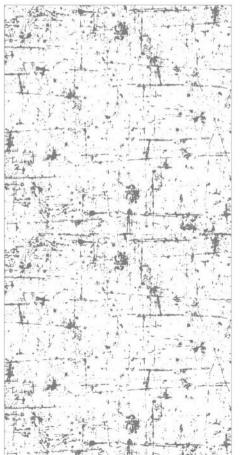




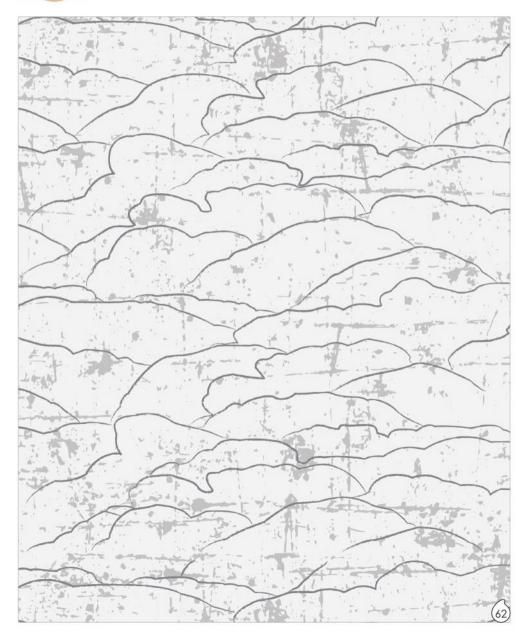
















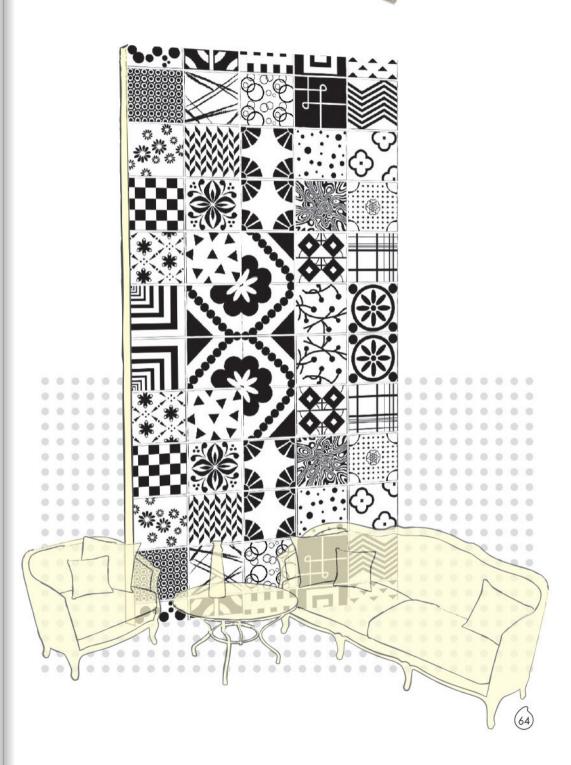


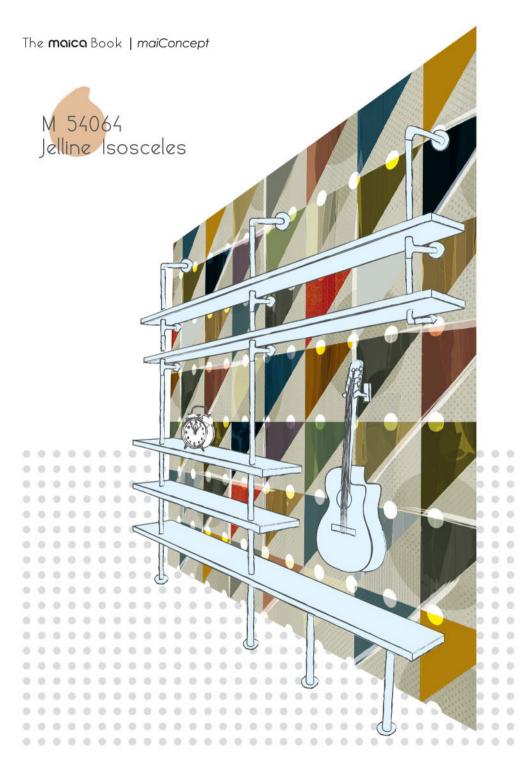










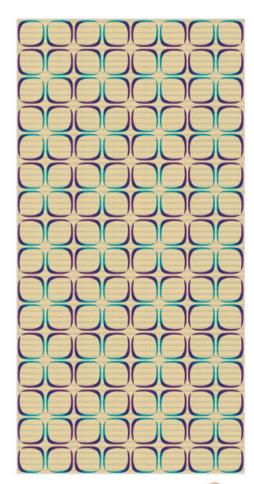






















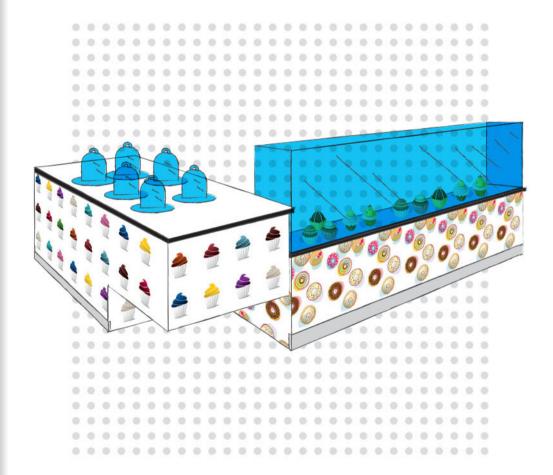














Maica Laminates Sdn Bhd

5100, Lorong Mak Mandin 5, Mak Mandin Industrial Estate, 13400 Butterworth, Penang, Malaysia.

F: +604 - 332 7436 **F:** +604 - 332 6570

E: marketing@maica.com.my

