

# M Series | X |

Engineered Bamboo  
For the Outdoors

## A BRIEF

All you need to know about M Series | X | engineered bamboo solutions.





  
 **M Series | X |**

altPlus solution to reduce the carbon footprint & improve the health, wellbeing & efficiencies of our buildings & spaces, while increasing durability & life time of our every day surroundings.

# An Introduction to altPlus® M Series™ X

## Outdoor Engineered Bamboo

M Series™ X is produced by thermo treating selected bamboo to an exact state. During the thermo treatment, chemical and structural changes occur within the bamboo which alter and improve basic characteristics. Through further processing of altPlus® EB, the resulting M Series™ e is most durable, stable and sustainable product in its class and is an ideal material for use in exposed areas such as external wall claddings.

### PERFORMANCE - BEST IN CLASS

#### DURABILITY

M Series™ X class leading durability makes it an excellent material to use as an alternative to timber claddings and architectural rain screens. altPlus® EB proprietary heat treatment and processing enables the use of engineered bamboo materials in areas requiring a desired service life of up to 25 years without the need for extra preservative.

#### STABILITY

M Series™ X are on average 20% more stable than typical hardwoods and up to 40% more stable than softwoods. The changes that occur within the bamboo during heat treatment make it less able to absorb or lose moisture and through altPlus® EB processes the M Series™ e materials restrict the movement of moisture limiting any potential for swelling, shrinkage or distortion of M Series™ X cladding boards.

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# Creating Lasting, Enriched Environments

## 25 YEAR SERVICE LIFE

Uncoated M Series™ X exterior cladding can provide a desired 25-year service life. This calculation is based on a number of conditions including: the quality of the workmanship at the time of installation and the exposure of cladding to the weather including location, elevation and design. If coated, over the life of the product, M Series™ X will have a 60-year desired service life, providing the coating is maintained in-line with the coating manufacturer recommendations over the service life of the product<sup>1</sup>.

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## VISUAL QUALITY

altPlus® EB is a naturally uniform product due to its natural grain pattern orientation. altPlus® EB M Series™ X takes advantage of these characteristics, providing a natural product with the uniformity that designers and professionals seek with only subtle variation in colour tones.

The natural colour of altPlus® M Series™ X is affected by the treatment temperature and time. This standardized process provides for a natural range from light to darker appearance. altPlus® M Series™ X is provided in pre-finished colour ranges in addition to endless finish treated options in altPlus® standard architectural colour chart.

As with all natural products, variances occur in colour tones and will naturally change through exposure. When M Series™ X is exposed to UV light, it will lose its colour and turn silver grey unless protected by a pigmented surface protection as can be found in [altPlus® standard architectural colour chart](#).

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## IDEAL APPLICATIONS

- Outdoor structures (canopies, trellises, pergolas)
- Wall cladding
- Fascia
- Soffit
- Outdoor furniture / Site Furnishings
- Decking
- Outdoor stair treads and handrails
- Other applications as requested

# Sustainability

The bamboo used to produce M Series™ is possibly the most rapidly renewable building material to be found on the earth. Bamboo's unique growing ability allows for it to be harvested in as early as four years without the requirement of replanting, and its relatively low-carbon input allow for the possibility of carbon neutral and negative products. altPlus manages and selects bamboo from a global network of forests that are professionally managed and certified, providing the option of FSC certified materials. M Series™ e is an engineered product that uses low VOC adhesives and finish coatings that allow for environmental credits in building design.

## Green Credits



**BREEAM®**

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Contribution LEED BD+C – v4: SS 7, MR1, MR2, EQ2, MR3 (FSC®)

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v2009: MR 6, MR 7 (FSC®), IEQ4.3, IEQ 4.4 (if requested as E0)

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Contribution BREEAM: HEA 2, MAT 1, MAT 3 (FSC®), MAT 5 (HD)

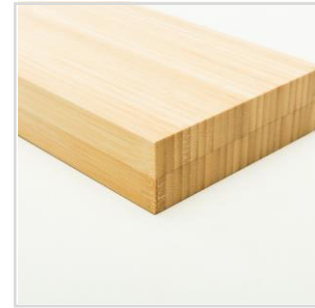
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# M Series LVB | X |

## Standard Profiles

### PERFORMANCE

Use Class	Exterior Use class 3 (BS EN 335)
Fire Rating	<b>Achievable Per Performance Requirement:</b> Class B1, Class B (GB 8624-2012) Class B (EN 13501-1) Class B, Class A (ASTM E84)
Certification	FSC certification available Qualifies for LEED® & BREEAM credits
Service Life	25 years (See design, installation & maintenance requirements)



#### Panel / M Series LVB 100 | X |

**Finish:** Sanded (100 grit)  
**Edges:** Micro bevel/ Eased edge or custom available per request

M Series LVB 100   X	Thickness (mm)	Width (mm)	Length (mm)
MX- LVB100-01SPX	19, 25, 38, 50	89 - 800	1000 - 6100
MX- LVB100-01CPX	12, 15, 19, 25, 28	200 - 1220	1000 - 5000

#### Panel / M Series LVB 100 | X |

**Finish:** Sanded (100 grit)  
**Edges:** Tongue + Groove, Micro bevel or custom available per request

M Series LVB 100   X	Thickness (mm)	Width (mm)	Length (mm)
MX- LVB100-02SPX	19, 25, 38	89, 140, 184	1000 - 6100
MX- LVB100-02CPX	15, 19, 25, 28	200 - 600	1000 - 5000

#### Panel / M Series LVB 100 | X |

**Finish:** Sanded (100 grit)  
**Edges:** Single side groove, Micro bevel or custom available per request

M Series LVB 100   X	Thickness (mm)	Width (mm)	Length (mm)
MX- LVB100-03SPX	19, 25, 38	89, 140, 184	1000 - 6100
MX- LVB100-03CPX	15, 19, 25, 28	200 - 600	1000 - 5000

#### Panel / M Series LVB 100 | X |

**Finish:** Sanded (100 grit)  
**Edges:** Two side groove, Micro bevel or custom available per request

M Series LVB 100   X	Thickness (mm)	Width (mm)	Length (mm)
MX- LVB100-04SPX	19, 25, 38	89, 140, 184	1000 - 6100
MX- LVB100-04CPX	15, 19, 25, 28	200 - 600	1000 - 5000

#### Dimensional Component / M Series LVB 100 | X |

**Finish:** Sanded (100 grit)  
**Edges:** Micro bevel/ Eased edge or custom available per request

M Series LVB 100   X	Thickness (mm)	Width (mm)	Length (mm)
MX- LVB M 100-DCSP	19 - 150	19 - 500	1000 - 6100
MX- LVB M 100-DCHC	30 - 150	19 - 500	1000 - 6100

# M Series LVB | X |

## Standard Profiles

### PERFORMANCE

Use Class	Exterior Use class 3 (BS EN 335)
Fire Rating	<b>Achievable Per Performance Requirement:</b> Class B1, Class B (GB 8624-2012) Class B (EN 13501-1) Class B, Class A (ASTM E84)
Certification	FSC certification available Qualifies for LEED® & BREEAM credits
Service Life	25 years (See design, installation & maintenance requirements)



#### LC / M Series LVB 100 | X |

Finish: Sanded (100 grit)



M Series LVB 100   X	Diameter (mm)	Width (mm)
LC- LVB100-10	20 - 130	1000 - 3600

#### LC / M Series LVB 100 | X |

Finish: Sanded (100 grit)



M Series LVB 100   X	Diameter (mm)	Width (mm)
LC- LVB100-30	50 - 130	1000 - 3600
LC- LVB100-31	50 - 130	1000 - 3600

#### LC / M Series LVB 100 | X |

Finish: Sanded (100 grit)



M Series LVB 100   X	Diameter (mm)	Width (mm)
LC- LVB100-50	20 - 130	1000 - 3600



# M Series LVB | X |

## Standard Profiles

### PERFORMANCE

Use Class	Exterior Use class 3 (BS EN 335)
Fire Rating	<b>Achievable Per Performance Requirement:</b> Class B1, Class B (GB 8624-2012) Class B (EN 13501-1) Class B, Class A (ASTM E84)
Certification	FSC certification available Qualifies for LEED® & BREEAM credits
Service Life	25 years (See design, installation & maintenance requirements)



### Cobra / M Series LVB 100 | X |

Finish: Sanded (100 grit)

M Series LVB 100   X	Thickness (mm)	Width (mm)	Length (mm)
MX- LVB100-01SPX	19, 25, 38, 50	138, 156	1000 - 6100

# Projects



M Series X VCP  
SDQ Resort, China  
CNA Smith Group  
Shanghai



M Series X VSP  
Starbucks, China  
Starbucks China



M Series X VSP  
SDQ Resort, China  
CNA Smith Group  
Shanghai



M Series X VSP  
Commercial  
Storefront,  
Nationwide USA  
Schuette Design, USA



M Series X L  
Metro Park Facade, San  
Jose, CA  
Schuette Design,  
USA



M Series X VSP  
Commercial Square,  
Springfield, IL  
Schuette Design,  
USA

[View more projects online at altplus.xyz/altplus-eb](https://altplus.xyz/altplus-eb)

## Service Life

**Design** / The designed application of M Series X products is significant to the overall service life. Solar radiation and the potential of deposits of water sitting on the surface of the materials are important factors in defining the most compatible finish system and maintenance program, to ensure the achievement of the desired service life. In full exposure, positioning the materials at an orientation greater than 30° from a vertical plane, will increase system requirements.

**Installation** / M Series X materials need to be installed following the installation guidelines in order to ensure the performance in the desired service life. Refer to the standard installation program for the M Series X materials and consult with the altPlus EB team to ensure your drawings are in coordination with the optimum configuration.

**Finish Systems** / There are a variety of finish outcomes that are desired and M Series X materials have the ability to achieve these through a range of coating systems. There are unique characteristics and benefits to each coating that allow for open or closed texture, fire rating in different degrees, sheen levels, and the durability of maintenance cycle. Consult with the coating manufacturer and the altPlus EB team for guidance.

**Maintenance** / Depending on the design and finish specification, a varying degree of maintenance will be required to achieve a desired service life. Maintenance cycles are available in a range of options from an annual brush on application oil treatment, to a robust 5+ year low-to-no maintenance cycle. The continuous upkeep of a finish coating can result in a service life of up to 60 years. If the desired outcome is a natural weathering of the materials, M Series X materials without treatment can be expected to turn silver-like and weather over the years but remain structurally intact for up to 30 years depending on the design and installation craftsmanship.

# Architectural Colour Chart

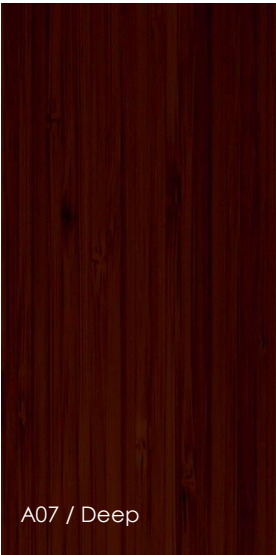
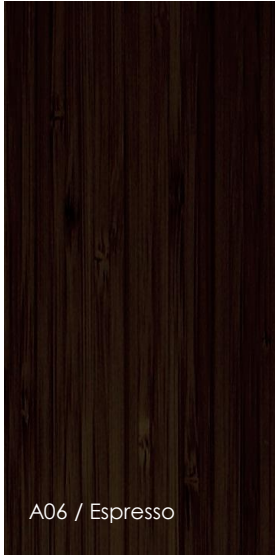
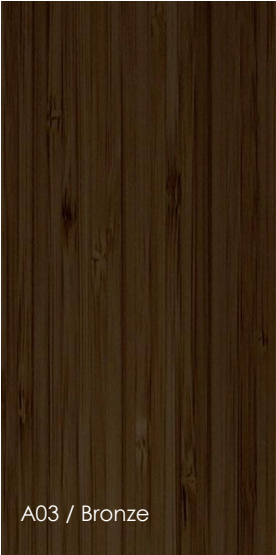
## Inspiration Standards

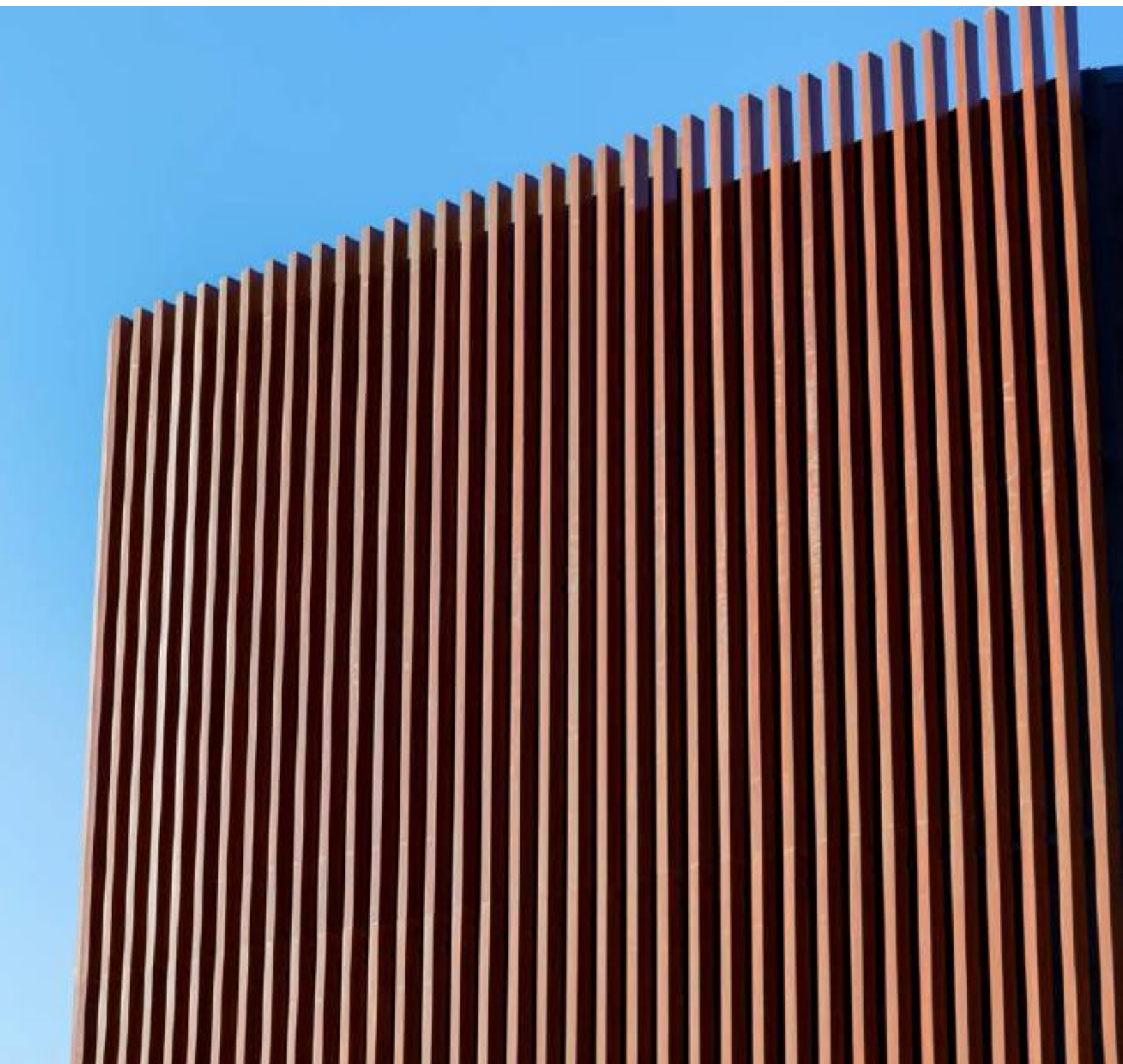


### Designer Note

This colour chart represents standard engineered bamboo colours. There is a wide range of patterns, tones, and composite surfaces that are available for integration into outdoor solutions.

- Wide range of colours
- Open & Closed grain finishes
- Treatments for long-term exposure





# altPlus<sup>®</sup> EB

For more information and a list of distribution in your area visit [www.altplus.xyz](http://www.altplus.xyz) or call 86 (0)21 612 77766

altPlus Technologies is an engineered bamboo products company delivering service-oriented solutions developed in collaboration with its customers. Its premium solutions are based on ecological, high quality engineered bamboo as a raw material.

Engineered bamboo is the most rapidly renewable, and highest sustainable building material in the world. altPlus Technologies manages and sources bamboo globally and is an approved Chain of Custody supplier.

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The photographs in this brochure are for illustration purposes only.

altPlus Technologies reserves the right to change the range without notice.

Every effort has been made to ensure that colours are accurate within the limitations of natural lighting conditions and the four colour printing process.

## altPlus EB

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