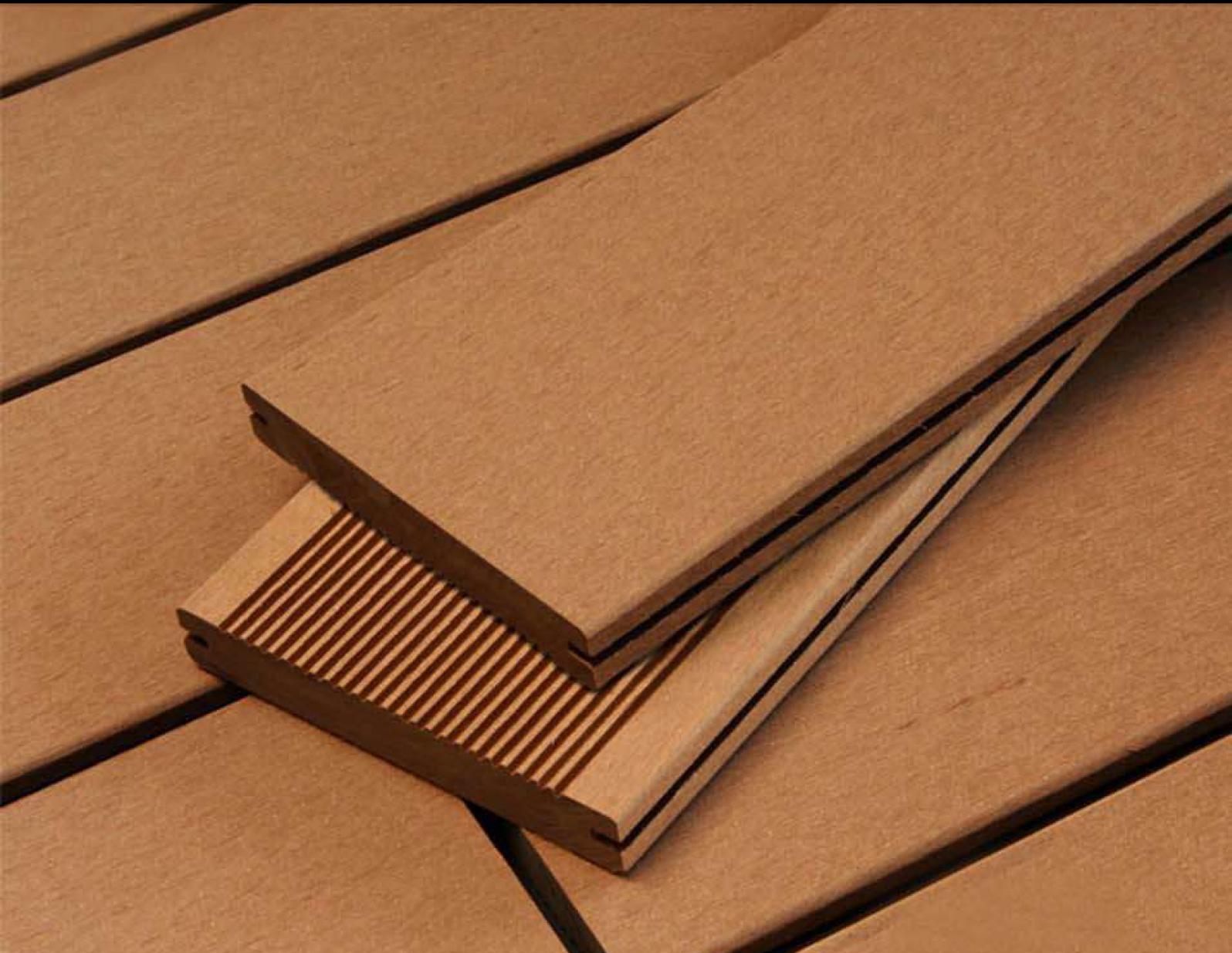




COMPOSITE DECKING TECHNICAL GUIDE





COMPOSITE DECKING | THE VIEW

Composite decking has been the popular choice for several years due to the widespread acceptance and availability, and continued to grow depends on the factors alike, colors, dimensional stability, low maintenance, price and easy to install.

Not only the initial cost of wooden decking is higher but as well in the long run required periodical maintenance would generate extra cost. In this perspective composite decking is the ideal solution for the outdoor decking needs.

The content of composite decking are Wood (60%) Plastic (35%) Composites (5%) including UV Resists and others, and produced by thoroughly mixing ground wood particles and heated thermoplastic resin. The method of production is to extrude the material into the desired shape.





COMPOSITE DECKING ADVANTAGES



EASY TO CLEAN | No Chemical cleaners required, just soap, water, a non abrasive cloth, or simply a jet wash



RESISTANT TO WATER | Excellent water resistance capacity



COLOURFAST | UV Resistance, long life of color



ENVIRONMENTALLY FRIENDLY | All deck board are 100% recyclable, with a natural appearance



SLIP RESISTANT | Safe for kids, pets and your own bare feet



LOW MAINTENANCE | No painting, staining required



ROT RESISTANT | It resists rotting, mildew and warping. No wood preservatives required



LOW FLAME SPREAD | When exposed to flame, our product will self extinguish

Composite decking is an environmental friendly, durable and stable product. It is made of recycled Plastic with reclaimed wood, never have to cut down a tree to make composite. It provides a beautiful and elegant look for outdoor enjoyment. Composite decking does not require paint, stain or sealer. It resists rotting, insects and warping. Our Decking features both wood feel, rigidity and UV resistance and plastic associated with resistance to maintenance problems. And unlike traditional wood this surface is splinters free, more durable and easier to live with, it is ideal for the home, hotels, hospitals, beach, clubs and marine applications.



DECKING COMPONENTS & INSTALLATION



DECK BOARD
WPC
23.5X145mm
2900mm



JOIST
WPC
30X40mm
3000mm



END CAP
PLASTIC
145X4mm
N/A

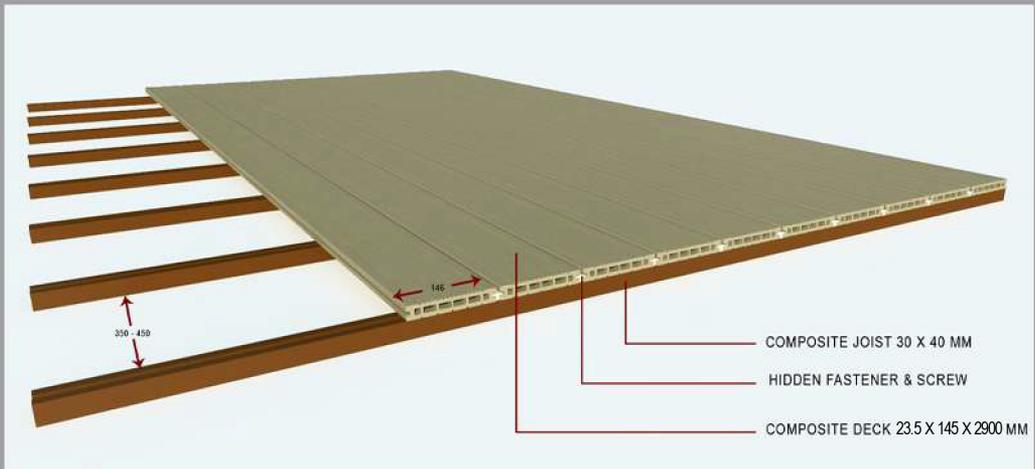


SCREW
30X4mm
N/A



HIDDEN DECK FASTENER | PVC
17X50mm
N/A

INSTALLATION PERSPECTIVE





MAJOR APPLICATIONS



OUTDOOR FLOORING



PUBLIC AREAS



SWIMMING POOL



MARINE APPLICATIONS



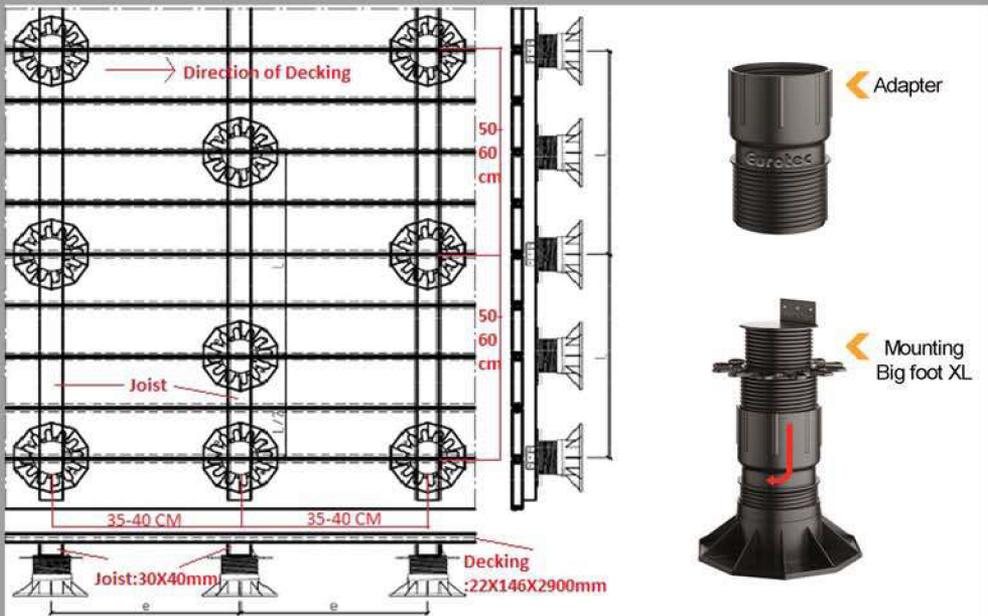
ROOF DECKING





DECKING WITH PEDESTALS

DECKING ALIGNEMENT WITH PEDESTALS



Adjustable pedestals for all types of terraces





MATERIAL TECHNICAL DATA

Plastic composite decking

TEST ITEM	TEST METHOD	UNIT	VALUE
Density	ASTM D792-08	g/cm ³	1.31
Tensile Strength	ASTM D638-10	kgf/cm ²	171
Elongation (%)	Type I. Rate: 5mm/min		1
Flexural Strength	ASTM D790-10	kgf/cm ²	270
Flexural Modulus	ASTM D790-10	kgf/cm ²	35500
Compression Strength	ASTM D695-10	kgf/cm ²	312
Water Absorption(%)	ASTM D570-98(2005)	23°C, after 24h	0.23
Nail - Head Pull - through strength	ASTM D1037-06a	kgf	358
Deflection Temperature	ASTM D648-07 Method B	(°C)(0.455Mpa)	125.9
Impact Test	ASTM D256-06a Method A	kgf-cm/cm	1.22
Shear Strength	ASTM D732-10	kgf/cm ²	160
Linear Change	Ref.ASTM D1204-08		
-5°C after 4h		%	-0.4
55°C after 4h		%	+0.2
Static coefficient of Friction	ASTM D1894-08		
DRY			0.74
WET			0.76

MATERIAL TECHNICAL DATA

Report Number: 140311003 SHJ -BP -1

Sample Description:

Product: WPC decking
Model: **CHBA207 (23x146x2900mm)**

Sample ID: S1403110032SHJ-001~006

Date Received: March 10, 2014

Date Test Conducted: Mar.10, 2014~Apr.16, 2014

Tests Conducted:

Test Methods: 1. ISO 4892-2:2013 cycle 1 (total exposure time 720h)
2. Freeze-Thaw Test (total 10 cycles)

Conclusion :

For details refer to attached page(s).

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

Test Items, Method and Results :

Sample Type	Standard	character	Result
WPC decking	ISO 4892-2:2013 cycle 1 (720h)	UV resistance	Grey scale 3-4 There was some colour change on the surface.
	In house method ¹ (10 cycles)	Freeze-Thaw Test	No visible blistering, cracking, chipping, chalking on the surface. No visible permanent deformation like warping and twisting. Grey scale 4-5 There was slight colour change on the surface. Dimensional change rate after freeze-thaw cycles: Length: 0.30% Width: 0.25% Thickness: 0.40%

Note:

- The test condition was specified and each test cycle consists of 48 hours with the following distribution:
24 hours of total immersion in tap water.
9 hours at -10℃ .
15 hours at 45 ° C and 80% relative humidity.
After total continuous 10 testing cycles, the parts were analyzed visually for blistering, cracking, chipping, chalking for dimensional changes/permanent deformation like warping or twisting. for colour and roughness. Which was carried out under D65 with artificial light (daylight)

Appendix: Test sample photos



Fig. 1 UV resistance



Fig.2 Freeze-Thaw Test

Chabros International Group warrants to the Purchaser that, for a period of 10 years from the date of original consumer purchase, under normal use and service conditions, products shall be free from material defects in workmanship and materials.

Product Code/Description WPC Composite Decking CHBA207

Chabros International Group warrants to the Purchaser that, for a period of 10 years from the date of original consumer purchase, under normal use and service conditions, products shall be free from material defects in workmanship and materials.

EXCEPTIONS TO THE WARRANTY

This warranty shall not cover and Chabros International Group shall not be responsible for costs and expenses incurred with respect to the removal of defective products or the installation of replacement materials, including but not limited to labor and freight.

Chabros International Group does not warrant against and is not responsible for any condition attributable to:

- (1) Improper installation of products and/or failure to abide by installation guidelines, including but not limited to improper gapping
- (2) Use of products beyond normal residential use, or in an application not recommended by guidelines and local building codes
- (3) Movement, distortion, collapse or setting of the ground or the supporting structure on which products are installed
- (4) Any act of God (such as flooding, hurricane, earthquake, lightning, etc.), environmental condition (such as air pollution, mold, mildew, etc.), or staining from foreign substance (such as dirt, grease, oil, etc.)
- (5) Variations or changes in color of products
- (6) Improper handling, storage, abuse or neglect of products by Purchaser or third parties

Product Composition

The composition of the Composite Decking that we have is 60% hard wood fiber, 35% first recycled plastic and 5% additives including UV resist and others.

Colour:

The color products will fade about 3%-5% in 3 month if summer, or 6 month in winter, then 3% for the remaining months in the first year, and the color will be fading about 10% in all.



MATERIAL TECHNICAL DATA

Concealed composite decking

TEST ITEM	TEST METHOD	UNIT	VALUE
Density	ASTM D792-08	g/cm ³	1.31
Tensile Strength	ASTM D638-10	kgf/cm ²	171
Elongation (%)	Type I. Rate: 5mm/min		1
Flexural Strength	ASTM D790-10	kgf/cm ²	270
Flexural Modulus	ASTM D790-10	kgf/cm ²	35500
Compression Strength	ASTM D695-10	kgf/cm ²	312
Water Absorption(%)	ASTM D570-98(2005)	23°C, after 24h	0.23
Nail - Head Pull - through strength	ASTM D1037-06a	kgf	358
Deflection Temperature	ASTM D648-07 Method B	(°C)(0.455Mpa)	125.9
Impact Test	ASTM D256-06a Method A	kgf-cm/cm	1.22
Shear Strength	ASTM D732-10	kgf/cm ²	160
Linear Change	Ref.ASTM D1204-08		
-5°C after 4h		%	-0.4
55°C after 4h		%	+0.2
Static coefficient of Friction	ASTM D1894-08		
DRY			0.74
WET			0.76

MATERIAL TECHNICAL DATA

Report Number: 140311003 SHJ -BP -1

Sample Description:

Product: WPC decking
 Model: CHBA169 (25x140x2900mm)

Sample ID: S1403110032SHJ-001~006
 Date Received: March 10, 2014
 Date Test Conducted: Mar.10, 2014~Apr.16, 2014

Tests Conducted:

- Test Methods: 1. ISO 4892-2:2013 cycle 1 (total exposure time 720h)
- 2. Freeze-Thaw Test (total 10 cycles)

Conclusion :

For details refer to attached page(s).
 The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

Test Items, Method and Results :

Sample Type	Standard	character	Result
WPC decking	ISO 4892-2:2013 cycle 1 (720h)	UV resistance	Grey scale 3-4 There was some colour change on the surface.
	In house method ¹ (10 cycles)	Freeze-Thaw Test	No visible blistering, cracking, chipping, chalking on the surface. No visible permanent deformation like warping and twisting. Grey scale 4-5 There was slight colour change on the surface. Dimensional change rate after freeze-thaw cycles: Length: 0.30% Width: 0.25% Thickness: 0.40%

Note:

1. The test condition was specified and each test cycle consists of 48 hours with the following distribution:
 24 hours of total immersion in tap water.
 9 hours at -10℃ .
 15 hours at 45 ° C and 80% relative humidity.
 After total continuous 10 testing cycles, the parts were analyzed visually for blistering, cracking, chipping, chalking for dimensional changes/permanent deformation like warping or twisting. for colour and roughness. Which was carried out under D65 with artificial light (daylight)

Appendix: Test sample photos



Fig. 1 UV resistance



Fig.2 Freeze-Thaw Test

Product Code/Description **WPC Composite Decking CHBA169**

Chabros International Group warrants to the Purchaser that, for a period of 10 years from the date of original consumer purchase, under normal use and service conditions, products shall be free from material defects in workmanship and materials.

EXCEPTIONS TO THE WARRANTY

This warranty shall not cover and Chabros International Group shall not be responsible for costs and expenses incurred with respect to the removal of defective products or the installation of replacement materials, including but not limited to labor and freight.

Chabros International Group does not warrant against and is not responsible for any condition attributable to:

- (1) Improper installation of products and/or failure to abide by installation guidelines, including but not limited to improper gapping
- (2) Use of products beyond normal residential use, or in an application not recommended by guidelines and local building codes
- (3) Movement, distortion, collapse or settling of the ground or the supporting structure on which products are installed
- (4) Any act of God (such as flooding, hurricane, earthquake, lightning, etc.), environmental condition (such as air pollution, mold, mildew, etc.), or staining from foreign substance (such as dirt, grease, oil, etc.)
- (5) Variations or changes in color of products
- (6) Improper handling, storage, abuse or neglect of products by Purchaser or third parties

Product Composition

The composition of the Composite Decking that we have is 60% hard wood fiber, 35% first recycled plastic and 5% additives including UV resist and others.

Colour:

The color products will fade about 3%-5% in 3 month if summer, or 6 month in winter, then 3% for the remaining months in the first year, and the color will be fading about 10% in all.



MATERIAL TECHNICAL DATA

Classic & Concealed composite decking

COLOURS AVAILABLE



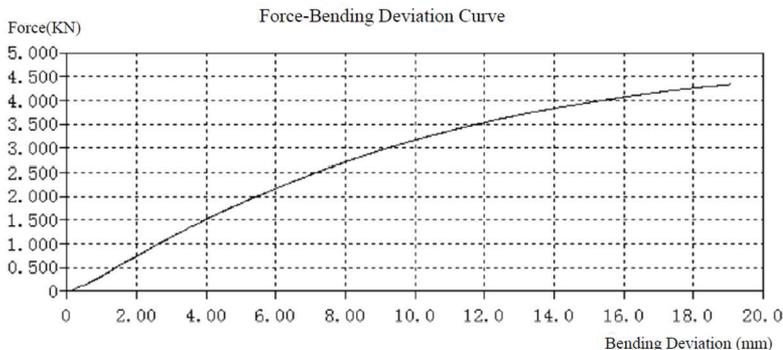


MATERIAL TECHNICAL DATA

Solid Composite Decking

TEST RESULT FOR CHBA137

Sample Description :		Model No :	CHBA137
Date Of Test :	2019-8-22	Test Person :	Jane
Test Temperature :	25	Test humidity :	50
Width of Test Sample(mm):	144.59	Thickness of Test Sample(mm):	22.91
Joist Distance(mm) :	400	Sectional Area :	3312.56
Breaking Load(N) :	4336.0	Static Bending Strength(MPa) :	34.28
Force Increment(N) :	737.1	Bending Increment(mm) :	1.87
Slope :	394	Modulus of Elasticity(MPa):	3626



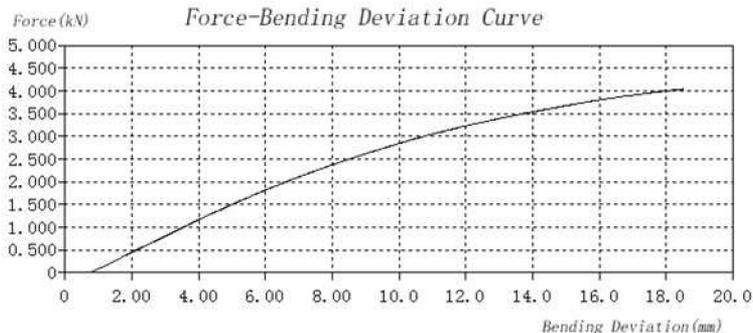


MATERIAL TECHNICAL DATA

Encapsulated embossed composite decking

TEST RESULT FOR CHBA005

Sample Description :	P3	Model No :	CHBA005
Date Of Test :	2019-8-2	Test Person :	Jane
Test Temperature :	25	Test humidity :	50
Width of Test Sample(mm):	150	Thickness of Test Sample(mm):	22.5
Joist Distance(mm) :	400	Sectional Area :	3395.35
Breaking Load(N) :	40044.0	Static Bending Strength(MPa) :	31.65
Force Increment(N) :	687.5	Bending Increment(mm) :	1.94
Slope :	354	Modulus of Elasticity(MPa):	3272



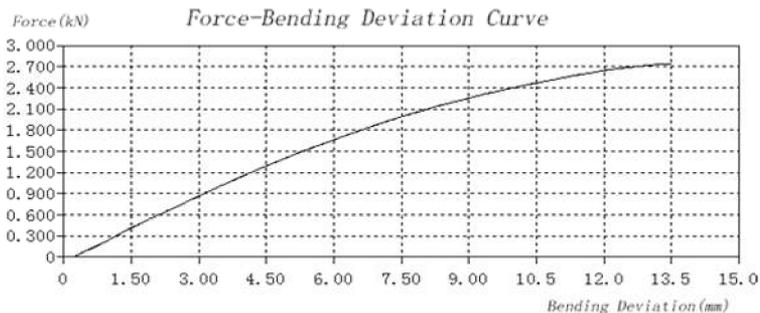


MATERIAL TECHNICAL DATA

Encapsulated embossed composite decking

TEST RESULT FOR CHBA172

Sample Description :	P22	Model No :	CHBA172
Date Of Test :	2019-5-29	Test Person :	Jane
Test Temperature :	25	Test humidity :	50
Width of Test Sample(mm):	146	Thickness of Test Sample(mm):	23
Joist Distance(mm) :	400	Sectional Area :	3478.46
Breaking Load(N) :	2744.0	Static Bending Strength(MPa) :	19.78
Force Increment(N) :	466.5	Bending Increment(mm) :	1.55
Slope :	301	Modulus of Elasticity(MPa):	2418



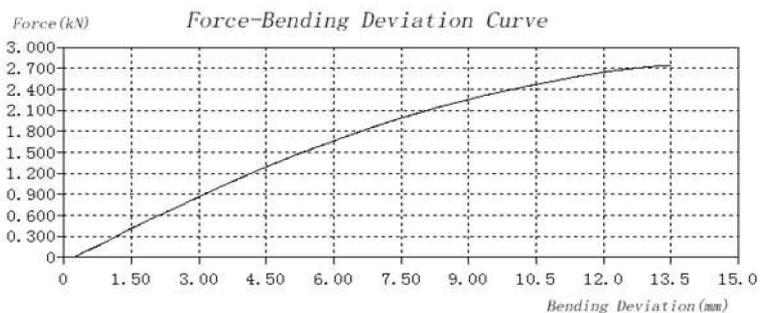


MATERIAL TECHNICAL DATA

Encapsulated embossed composite decking

TEST RESULT FOR CHBA237

Sample Description :	M3+57	Model No :	CHBA237
Date Of Test :	2019-8-2	Test Person :	Jane
Test Temperature :	25	Test humidity :	50
Width of Test Sample(mm):	138	Thickness of Test Sample(mm):	23
Joist Distance(mm) :	400	Sectional Area :	2840.61
Breaking Load(N) :	3218.0	Static Bending Strength(MPa) :	32.96
Force Increment(N) :	547.1	Bending Increment(mm) :	1.61
Slope :	340	Modulus of Elasticity(MPa):	4504





MATERIAL TECHNICAL DATA

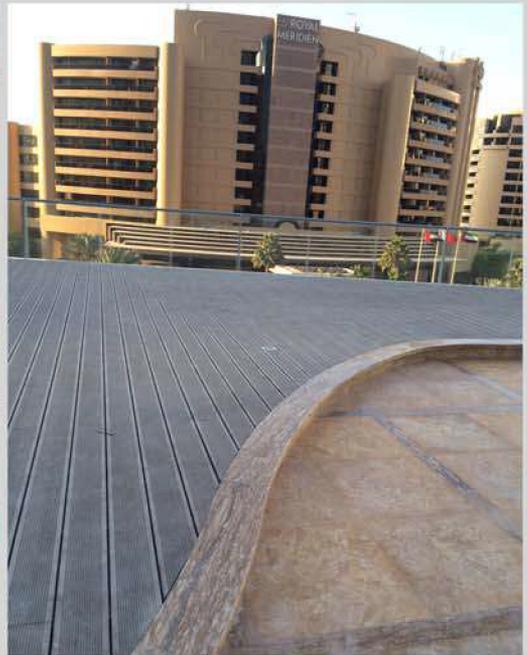
Encapsulated embossed composite decking

COLOURS AVAILABLE





OUR PROJECTS





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