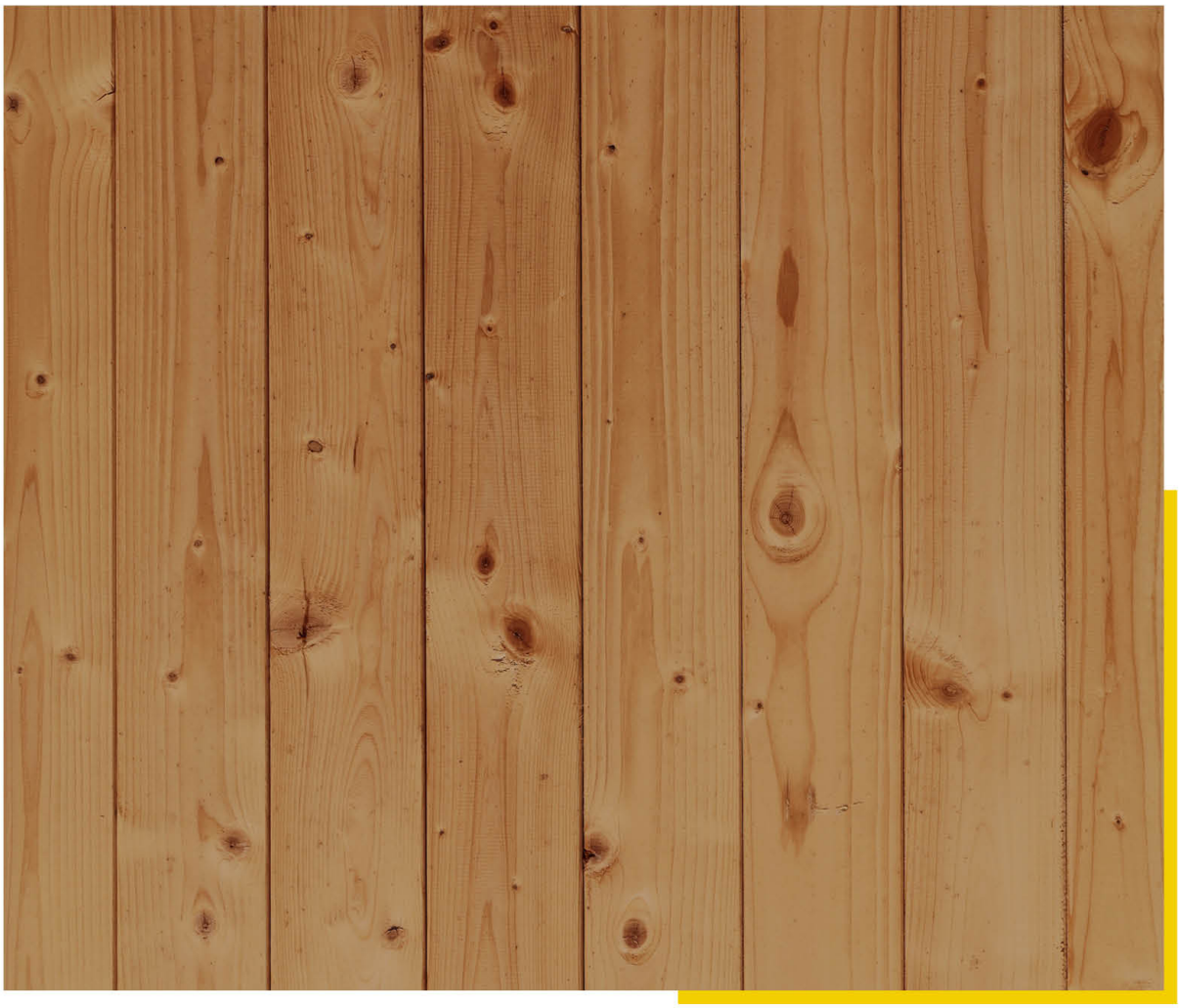
TIMBRA® TECH
Innovating Nature
Building Futures

TECHNICAL BULLETIN
GR.TT BASIC EN V.02

Product Grading Rules **Basic**



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Grade Selection

The purpose of this document is to provide a simplified but thorough explanation of the grading rules of TIMBRA Tech® Basic.

TIMBRA Tech® benchmark products undergo intense thermal modification. It makes the BASIC selection exceptionally durable (Class 1) and stable while emphasizing its warm dark-brown colour.

Grade selection and specification will have a significant impact on both the appearance and performance of wood products in any given application. When thermally modified hardwoods are specified or purchased without clearly defining grade expectations, there is no assurance of the quality and consistency of the product delivered, and no accountability standard set for the supplier. And since grade affects price, what looks like a good deal on paper might not look nearly as good on your project. If the product is being used in structural applications like decking, grade has a direct impact on mechanical properties and load performance.

In the absence of industry established and defined quality control standards for thermally modified hardwood, cladding, decking and lumber **TIMBRA Tech®** has developed and published grading standards and product specification language which we apply to our production.

TIMBRA Tech® has created this guide to assist clients and end users in determining grade expectations and value requirements as well as to understand some of the common grades that might be encountered in the market. We strongly encourage clients and consumers to utilize these standards in their decision making process and to specifically reference these standards in their purchase orders.

Grading Rule Definitions

As with most natural wood products, Thermally Modified hardwoods possess natural “Appearance Characteristics” that add to their unique beauty.

Those that are appreciated include colour variation and distinctive grain patterns. Other characteristics in all types of lumber that develop naturally or through manufacturing are known as “Physical Characteristics”, “Sound Defects”, Unsound Defects and “Milling Defects”.

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The grading of Decking into categories as it is processed by **TIMBRA Tech®** to determine to a large extent the value and potential use possible for each board. The following is a summary of the typical characteristics one might find in a wood grade specification.

It is important to note that industry standard allows for 5% sub grade in all production to allow for human error in the grading process.

Characteristics

Appearance

1. Mixed Grain
2. Drying Checks
3. Reverse Grain
4. Birdseye
5. Pin Knots
6. Water Stain
7. Discoloration
8. Sticker Marks
9. Molder Knife Marks
10. Spike knots
11. Scar
12. Bark / Rot / Mould
13. Wane

Physical

1. Bow
2. Crook
3. Cup
4. Twist
5. End Splits

Defects

Milling

1. Hit or Miss/Skip
2. Torn grain
3. Non-compliant profiling

Sound

1. Pin holes
2. Sound knots

Unsound

1. Large borer holes
2. Splits
3. Unsound knots
4. Shake
5. Sapwood
6. Transversing arris knot

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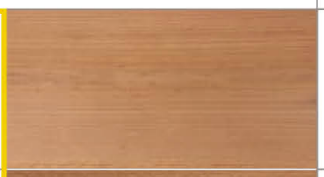
GRADED BY

		BETTER FACE	BACK FACE
HIT & MISS		Not allowed	Max 1/2 of the width of the board
FEED-ROLLER MARKS		Not allowed	Unlimited
WANE		Not allowed	Max 1/3 of width and 1/5 of the thickness of the board
MECHANICAL DEFECTS		Not allowed	Unlimited
SURFACE CHECKS		Max 100 mm long	Unlimited
SHAKES		Not allowed	
END SPLITS		Max. length ≤ board width	Unlimited
RING SHAKES		Not allowed	Not allowed
SOUND KNOTS		Visually graded - must preserve board integrity	Unlimited
KNOT HOLE		Not allowed	Unlimited if not through the board

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		BETTER FACE	BACK FACE
BARK KNOTS		Sound, ☒ ≤ 1/3 board width; bark ≤ ½ ☒	Unlimited
DEAD KNOTS		Up to ☒ 15 mm	Unlimited
BLACK KNOTS		Up to ☒ 1/5 of the width of the board	Unlimited
UNSOUND KNOTS		Not allowed	Unlimited
BROKEN KNOTS		Visual impact (≥1,5 m– ≤ 1/10 board width	Unlimited
KNOT SHAKE		Decking up to 3 mm wide and 50 mm long/ cladding up to 5 mm wide and 50 mm long	Unlimited
PIN KNOTS		Unlimited	
SPIKE KNOTS		Up to ☒ 1/2 of the width of the board	Unlimited
EDGE AND ARRIS KNOTS		Unlimited	
BROKEN EDGE KNOT		Limited to 1/10 of the width	Unlimited

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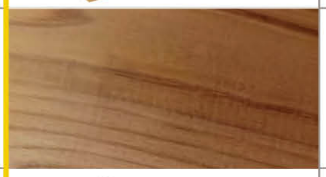
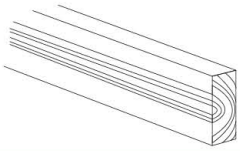
		BETTER FACE	BACK FACE
KNOT CLUSTER		Visually graded must preserve board integrity	Unlimited
PARTIALLY INTERGROWN KNOTS		Bark up to 1/2 of the diameter	Unlimited
RESIN POCKET		Allowed up to 300 mm²	Unlimited
SCAR		Allowed up to 300 mm²	Unlimited
PITH		Unlimited	Unlimited
SLOPE OF GRAIN		Unlimited	
ROT/MOULD/ BLUE STAIN		Not allowed	
INSECT HOLES		Not allowed	Unlimited
CUP		Allowed up to 1% of the width of the board	
TWIST		Allowed up to 5% of board width per meter in length, has to be reversible during installation	

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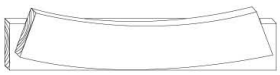
		BETTER FACE	BACK FACE
BOW		Allowed up to 2 mm per meter in length	
SPRING CROOK		Allowed up to 7,5 mm per meter in length	
TOLERANCES		Thickness: +/- 0,5 mm Width: +/- 0,5/-1 mm Length: +/- 2 mm per meter in length	

All defects that are allowed on the back face and not limited by size, are tolerated to the extent that they will not jeopardize the integrity, usability, and visual wholeness of the installed product.

Together
we change wood
to change the world

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