

Product Grading Rules Advance



Grade Selection

The purpose of this document is to provide a simplified but thorough explanation of the grading rules for TIMBRA by GWP hardwood Thermally Modified products.

TIMBRA by GWP products undergo intense thermal modification. It makes the Advance selection exceptionally durable - Durability Class I (EN350) - 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 such as 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 by GWP** has developed and published grading standards and product specification language which we apply to our production.

TIMBRA by GWP 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".

The grading of Decking into categories as it is processed by **TIMBRA by GWP** to determine, to a large extent, the value and potential use 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. Color Variation
2. Mixed Grain
3. Drying Checks
4. Reverse Grain
5. Birdseye
6. Pin Knots
7. Water Stain

8. Discoloration
9. Sticker Marks
10. Molder Knife Marks

■ Physical

1. Bow
2. Crook
3. Cup
4. Twist

Defects

■ Milling

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

■ Sound

1. Pin holes
2. Sound knots

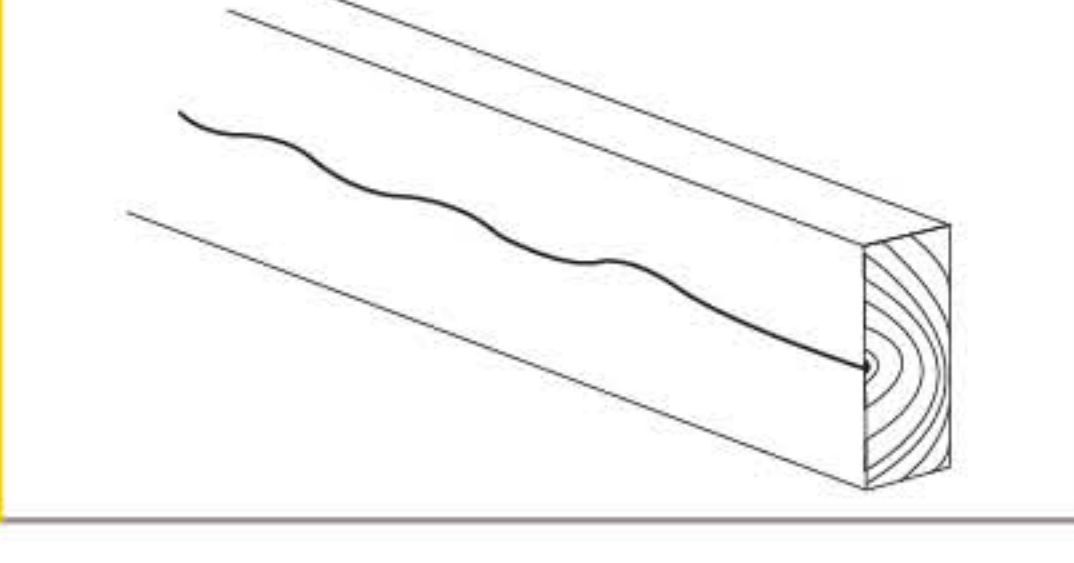
■ Unsound

1. Large borer holes
2. Splits
3. Unsound knots
4. Shake
5. Sapwood

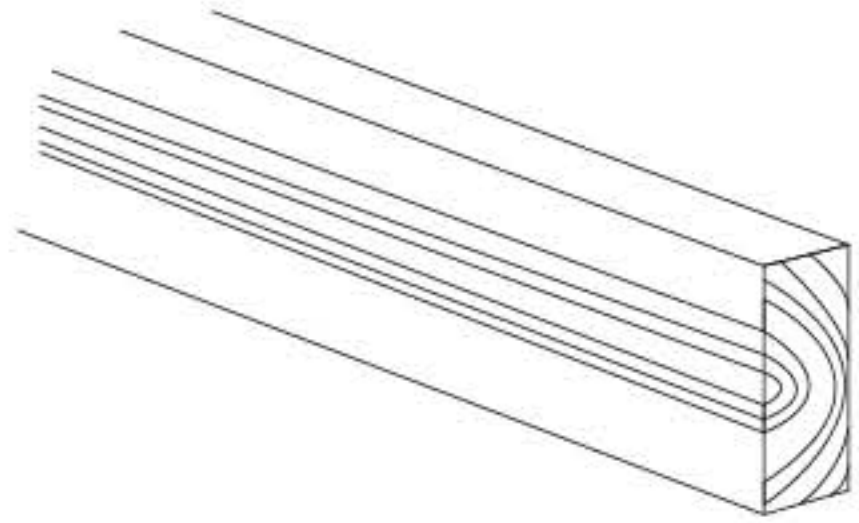
GRADED BY

		BETTER FACE	BACK FACE
HIT & MISS		Not allowed	≤30% area
FEED-ROLLER MARKS		Not allowed	≤50% area
WANE		Not allowed	Max 1/5 of width and 1/3 of the thickness of the board
MECHANICAL DEFECTS		Not allowed	Unlimited
SURFACE CHECKS		Up to 0.08" wide and 1.97" long	Unlimited
SHAKES		Not allowed	
RING SHAKES		Not allowed	
END SPLITS		Up to 1.18"	Unlimited
KNOT HOLE		Not allowed	
BARK KNOTS		Not allowed	Unlimited

GRADED BY

		BETTER FACE	BACK FACE
DEAD KNOTS/ BLACK KNOTS		Not allowed	Unlimited
UN SOUND/ BROKEN KNOTS		Not allowed	Unlimited
KNOT SHAKE		Not allowed	Unlimited
PIN KNOTS		Up to Ø 0.6"	Unlimited
ARRIS KNOTS		Not allowed	Unlimited
EDGE KNOTS		Allowed up to 1/2 of the thickness of the board	Unlimited
KNOT CLUSTER		Not allowed	Unlimited
PARTIALLY INTERGROWN KNOTS		Not allowed	Unlimited
SCAR		Up to 0.31 in ²	Unlimited
PITH		Not allowed	Unlimited

GRADED BY

		BETTER FACE	BACK FACE
BARK/ROT/ MOULD		Not allowed	
INSECT HOLES		Not allowed	Unlimited
GLASS WORN MARKS		Not allowed	
STICK MARKS		Not allowed	≤20% area
CUP		Allowed up to 1% of the width of the board	
TWIST		Allowed up to 5% of board width per 3.28 ft in length, has to be reversible during installation	
BOW		Allowed up to 0.08" per 3.28 ft in length	
SPRING CROOK		Allowed up to 0.34" per 3.28 ft in length	
TOLERANCES		Thickness: +/- 0.02" Width: +/- 0.04" Length: +/- 0.04" per 3.28 ft 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.

Innovating
Nature
Building
Futures



Together
we change Wood
to change the World



timbrawood.com



in 