

Hightech™ Woods

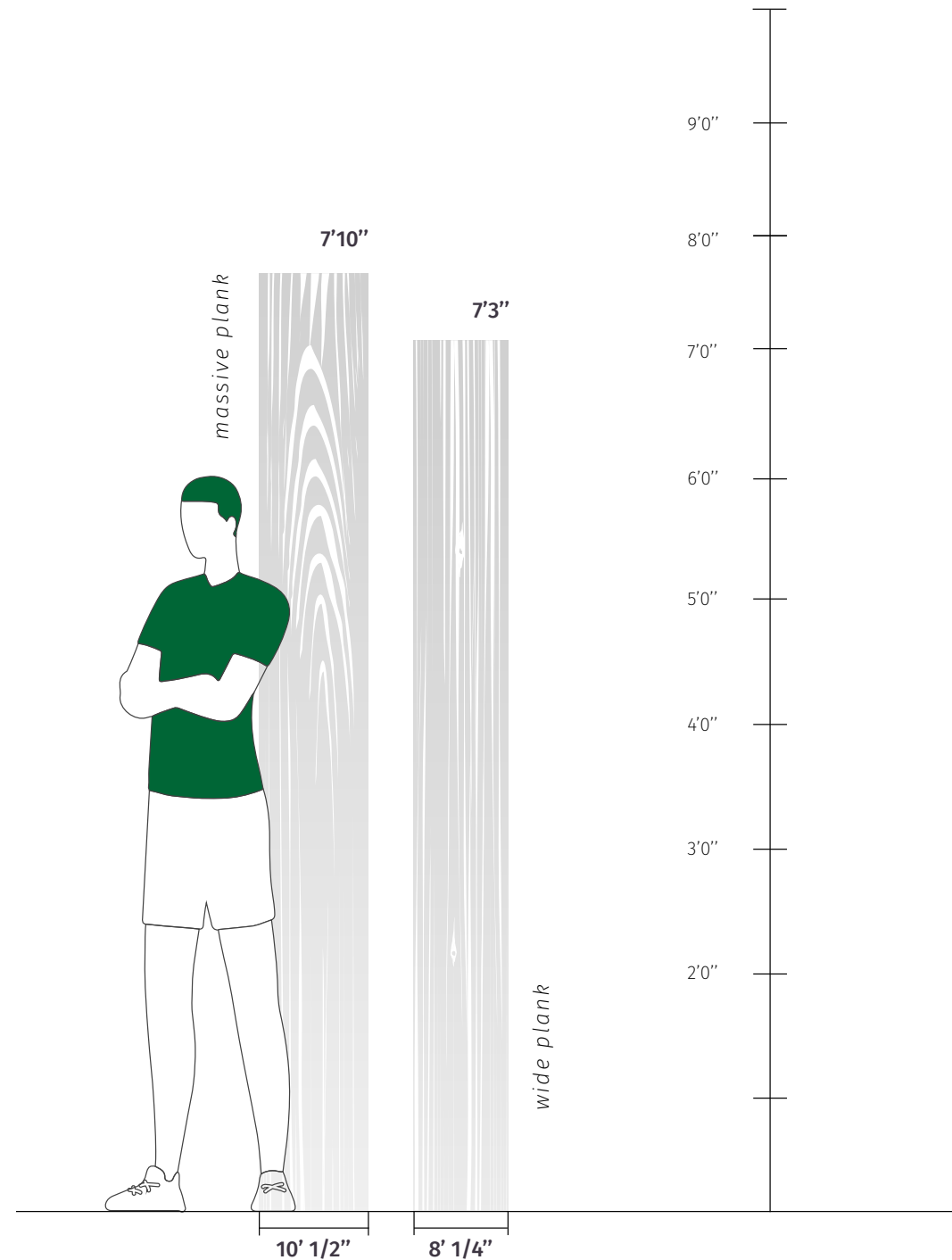
WIDE PLANK FLOORING



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Hightech™ Woods - What is it?

Hightech Woods is a line of wide plank, plain-sawn wood (Walnut, Oak, and Ash) that is thermally bonded to an extremely densified FSC-core, to make long length, extremely stable flooring planks typically reserved for only the highest end budgets. Using a proprietary manufacturing system, Hightech Woods differentiates itself from traditional flooring in three critically important areas: dent resistance, stability, and installation (method and speed). Wide plank flooring that performs has never been so attainable.



The specific product and the technical details:

'Wide' size:
209mm * 2210mm x 11.3mm
(approx. 8-1/4" x 87" x 7/16")

'Massive' size:
267mm * 2388mm x 11.3mm
(approx. 10-1/2" x 94" x 7/16")

Profile:
Micro-bevel

Finish:
Commercial 'water-based' urethane

Installation Method:
Glue-down or 'float'



Features:

- Real wood, single strip veneers
- Made with a densified core that provides 3x the impact resistance of traditional solid or engineered wood floors
- Suitable commercially (10-year warranty) and residentially (lifetime protection)
- Unmatched water resilience compared to 'traditional' wood flooring.
- Can be installed Above, On, or Below Grade (is 24 hours+ waterproof to standing water)
- Cost-saving Installation method via proprietary 'click' profile (over 100 sq.ft. can be installed within 5 minutes – via 'professional' installation crew)



Colors:



Chestnut Oak



Country Ash



Field Ash



Light Weather



Medium Weather



Oak Latte



Oak Natural



Tobacco Oak



*Walnut Natural**



*Smoked Walnut**

* NOT available in the "Massive"

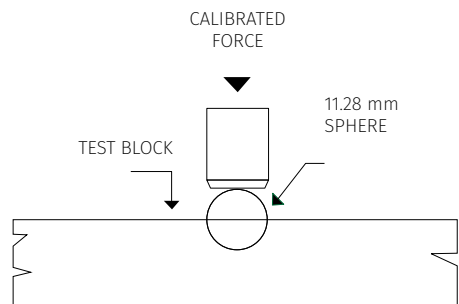


Dent resistance

Hightech hardness properties compared to solid wood.

Janka hardness test ASTM D1037-12

The hardness of a wood is rated on an industry wide standard known as the Janka test. The Janka test measures the force required to embed a .444 inch steel ball into the wood by half its diameter. This test is one of the best measures of the ability of a wood specie to withstand denting and wear. It is also a good indicator of how hard a specie is to saw, mill and nail. There are many things to consider when choosing your wood, including the hardness, natural colour of the wood, the grain and the stability.



2350 BRAZILLIAN CHERRY

2345 MESQUITE

▶ **2330 – HIGHTECH OAK**

▶ **2305 – HIGHTECH ASH**

2200 SANTOS MAHOGANY

▶ **2100 – HIGHTECH WALNUT**

1925 MERBAU

1910 JARRAH

1860 PURPLEHEART

1820 HICKORY / PECAN

1725 AFRICAN PADAUK

1630 WENGE

1450 HARD MAPLE

1375 AUSTRALIAN CYPRESS

1360 WHITE OAK

1320 ASH

1300 AMERICAN BEECH

1290 RED OAK (NORTHERN)

1260 YELLOW BIRCH

1225 HEART PINE

1010 BLACK WALNUT

1000 TEAK

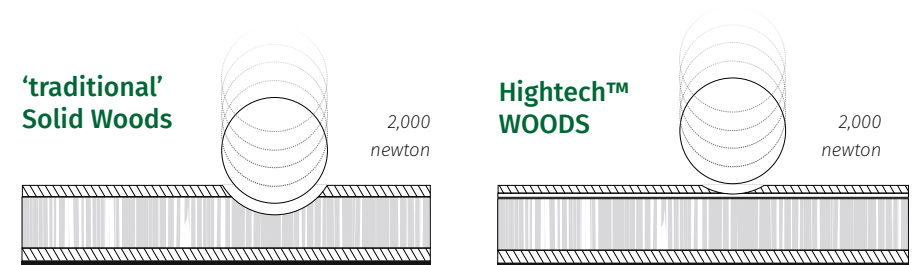
950 BLACK CHERRY

870 SOUTHERN YELLOW PINE (LONGLEAF)

690 SOUTHERN YELLOW PINE

660 DOUGLAS FIR

One of the main innovations surrounding Hightech is its' densified composite wood core, and the method to which the wood veneer is attached to it. Using a nano granule resin to marry the two layers ensures that the microscopic pores on the underside of the veneer is filled, effectively transferring the durability of the densified core to the wood veneer above. In real terms, this process significantly increases the woods' Janka hardness, boosting the extremely important impact/dent/gouge resistance. The Hightech woods provide 3x the impact resistance when compared to traditional wood flooring of the same species. If a product shows less wear, it will look better for longer, and less frequently need refinishing and/or replacement.



Janka Hardness (*) – ability to withstand denting/wear (the higher the number the better)



(* force required to imbed a .444" steel ball half its diameter)

(** these #'s are linear in nature – whereas Hightech Walnut is almost 2x as hard as a 'traditional' Walnut)

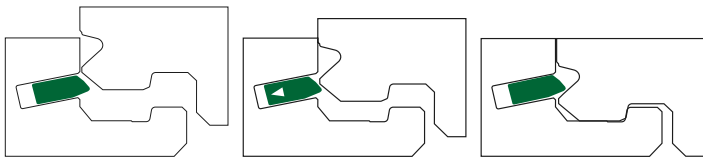
Stability

The Hightech woods' core, the optimized thickness of the face veneer, and the method of bonding the two elements together are designed specifically to ensure that stability is maximized. Stability relates to the amount of expansion and contraction a material experiences due to changes in relative humidity and temperature. By developing such a stable core, the plank width and length can be maximized. Our planks are the epitome of wide plank stability – all set sizes, all wide widths, and all long lengths – all highly engineered to ensure they perform.

Ease of Installation

Due to the 'technology' behind locking mechanism:

- providing 'drop and lock' installation
- made with a reinforced tongue that ensures the joints are impervious to topical moisture for over 24 hours
- made with a water-resistant core (< 5% swell rate)
- suitable On, Above, or Below 'grade'



Installation is done at lightening speed:

- Professional Installation (open room): 100 sq.ft. in less than 5 minutes
- DIY Installation (open room): 100 sq.ft. in approx. 10 minutes

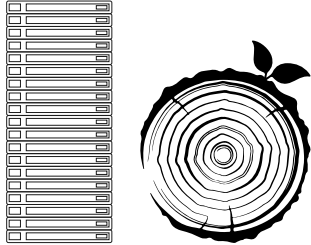
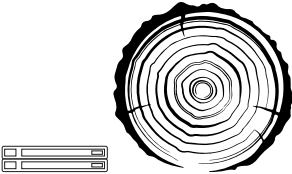
Save time.....save money.....and, have a better product!



Sustainability

SUSTAINABILITY DRIVES OUR PRODUCT INNOVATIONS AND CHOICES, AND WE BELIEVE OUR HIGHTECH FLOORING WARRANTS BEING THE POSTER CHILD OF 'SUSTAINABILITY'.

Wood Veneer to maximize yield – by using a veneer over a solid plank, and optimizing its' thickness (as it relates to durability, stability, and refinish ability), the yield from the harvested trees is 10x what it would be compared to using a traditional plank.

Hightech Woods	'traditional' Solid Woods
	
<p>Hightech has 10x the yield of finished material when compared to 'solid' wood</p>	



"FSC" core material – by using by-product and sustainable manufacturing inputs that are additionally 'FSC-certified', the material follows a chain that only the most truly sustainably sourced manufactured products can adopt.

Economics and Carbon emissions – natural flooring products that last longer and are easier to maintain, decrease the energy and carbon use as it relates to global sourcing, production, and frequency of replacement.

GENERAL PROPERTIES	WIDE PLANK	MASSIVE PLANK
Construction	Engineered Plank	
Thickness (inches)	0.44"	0.44"
Width (mm/inches)	8.11"	10.67"
Length (mm/inches)	86.61"	93.62"
Surface Finishing	UV-Cured Water-based Acrylic	
Installation Method(s)	Floating or Glue-down	
Underlayment	Foam or equivalent	

CLASSIFICATION & SAFETY PROPERTIES	STANDARD TEST METHOD	RESULTS
Fire Resistance	EN 13501	Bfl-S1 (Hardly Flammable)
Smoke Density	ASTM E662	316 Flaming / 255 Non-Flaming
Critical Radiant Flux	ASTM E648	Class I - 0.82 W / cm ²
Thermal Resistance	EN 12667 / 12664	R 0.07 (m ² x K)/W
Thermal Conductivity	ASTM C518	1.2472 Vlu in. / h ft ² F
Formaldehyde Emission	EN 1-717	E1
Carb Phase 2 Compliant	ASTM D14-6007	Yes
Brinell Hardness	EN 1534	10 HB (Average Value)
Impact Resistance	EN 14354	EC3
Janka Hardness	ASTM D12-1037	Walnut(s) – 2100 lbf Oak(s) – 2330 lbf Ash(s) – 2305 lbf
Thickness Swell	EN 13329 / ISO 24336	%5 Class %8> 34)
Taber Abrasion Resistance (CS10- abrasive wheels)	ASTM D4060	>5000 cycles w/out breakthrough
Sound Transmission Loss (STC) 8" slab only	ASTM E336/E413	55
Impact Isolation Class (IIC) 8" slab only	ASTM E492/E989	55
Slip Resistance (COF)	ANSI A137.1/A326.3	wet: 0.73 (Average Value)
Surface burning Characteristics for Building materials	ASTM E19-84b	Class C (Type III)



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