

**Certificate of Compliance**  
**Technical Data - Iron Woods® Macaranduba**

We hereby certify that Iron woods® Macaranduba has been tested per ASTM Standards as indicated below.

Features	Iron Woods® Macaranduba
Composition	Naturally Durable Hardwood Untreated
Species	Manilkara bidentata
Surface	Dressed / Profiled / Roughsawn
Color	Natural
Installation	Stainless Steel Fasteners
Max overhang beyond joist	6"
Weight per net bf AD 18%+ (avg)	4.5 lbs
Weight per net bf KD 18% - (avg)	4 lbs
Lengths	To 20'

<b>Property Description</b>	<b>ASTM Standard</b>	<b>Iron Woods® Angelim pedra</b>
Modules of Elasticity	ASTM D-143	3,520,000 psi
Bending Strength	ASTM D-143	29,200 - Dry
Compression Parallel to Grain	ASTM D-143	13,300 psi
Compression Perpendicular to Grain	ASTM D-143	3190 psi
Shear Parallel to Grain	ASTM D-143	NA
Screw Pull Out		NA
Coefficient of Friction - Leather	ASTM C1028-89	NA
Coefficient of Friction - Neolite	ASTM C1028-89	NA
Surface Burning	ASTM E-84 (1989)	NA
Flame Spread (20 minutes)	ASTM E-84 (1989)	NA
Flame Spread (10 minutes)	ASTM E-84 (1989)	NA
Smoke Developed (10 minutes)	ASTM E-84 (1989)	NA
Fuel Contribution (10 minutes)	ASTM E-84 (1989)	NA



Acute Inhalation Combustion Toxicity	NYS Modified Pittsburg Protocol	NA
Combustion Toxicity Test	NYSUFPBC, Art 15, Part 1120,9 NYCRR 1120	NA
Surface Burning	ASTM E84 (2007)	NA
Calculated Flame Spread (10 minutes )	ASTM E84 (2007)	NA
Flame Spread Index	ASTM E84 (2007)	NA
Calculated Smoke Developed	ASTM E84 (2007)	NA
Smoke Developed Index	ASTM E84 (2007)	NA

**Additional Compliance Fire**

City Of NY Dept. of Buildings	Fire Retardant Wood Code Sections 27-328	NA
San Francisco Building Code	Code Section 1511.5 (rooftop decks )	NA
CalFire Wildlife Urban Interface Areas	Code Section Chapter 7A (CSFM 12-7A-4)	NA
Materials and Construction Methods	Exterior Wildlife Exposure: Decking	
International Building Code	Fire Resistant Wood	(Compliant)
International Residential Code	Fire Resistant Wood	(Compliant)

**Additional Compliance Technical**

International Building Code	Naturally Durable Wood	(Class 1 / Compliant)
International Residential Code	Naturally Durable Wood	(Class 1 / Compliant)

This certificate of compliance is a continuing, irrevocable representation and warranty of compliance with Iron Woods® Ipe Technical requirements and may continue to be relied upon by its customers for each purchase of goods or services unless prior timely prior written notice is given to our customers that the goods or services Timber Holdings USA proposes to sell to our customers do not comply with the Iron Woods® Ipe Technical Requirements. Such notice shall not be deemed to revoke or modify Certificates of Compliance previously provided by Timber Holdings USA.