Wood

landscapeforms

Technical Information

Luxurious Wood

The warmth and beauty of wood is a look that only nature can create. From this natural beauty, Landscape Forms fashions tastefully designed, high quality public space furniture, engineered to wear beautifully in the public eye.

Hardwoods

There are many species of hardwoods available in the world in quantities and at prices that make them a practical choice for furniture. We use hardwood species that are difficult to carve into – a good choice for furniture placed in unsupervised public areas.

Landscape Forms currently uses seven hardwoods: red oak, hard maple, jarrah, ipe, teak, thermally modified ash, kebony, and fused bamboo.

Softwoods

The advantage of softwoods is their stability. As softwoods weather through wet and dry cycles, they expand and shrink only a small amount. As a result, softwood is less likely to warp, check, cup or split. Landscape Forms uses redwood and Alaskan yellow cedar.

They are two of the higher rated softwoods.

Forest Management

Forests are a renewable natural resource. Through ongoing programs of management and reforestation, we will always have an ample supply of hardwoods for useful products. According to the Forest Statistics of the United States, “The U.S. grows far more hardwoods than are harvested each year. Overall, the net volume of growing stock timber in the U.S. is increasing.” Our red oak and maple are harvested from well managed U.S. Forests.

The Western Australian forests which produce jarrah are managed by the Australian government’s Forest Products Commission which is ISO 14001 certified and has received the Timber Industry’s Excellence in Forest Management Award. All Western Australian jarrah is now from regrowth forests, with no harvesting of old growth forests allowed.

The redwood forests lie along the West Coast. Abundant groves of very large, old redwood trees have been preserved. The commercial redwood forests are privately owned lands where tree farmers have planted and grown trees specifically to be harvested. These farms are inspected and approved by the State Department of Forestry.

Landscape Forms is FSC® certified for chain of custody by Preferred by Nature. Our FSC® certified wood products are recognized as coming from well managed forests adhering to the strict environmental and socioeconomic standards of the Forest Stewardship Council® (FSC®). This certification is your assurance that Landscape Forms utilizes wood from well managed forests. FSC Chain of Custody certified Ipe, maple, and red oak are available upon request for specific products as noted on our website. Landscape Forms FSC License Code is FSC® C008569.

Our teak is from plantations in Java which are well managed by the government agency responsible for managing Indonesia’s extensive forests and plantations. This agency strictly regulates the number and size of trees that can be felled, and the number of trees replanted to maintain productivity of the teak forests for future generations.

Domestically sourced thermally modified ash is thermally modified in an oxygen-deprived kiln to 230°C. Complex chemistry converts the cellulose structure making the wood highly durable.

Maintenance

Wood products in interior applications may be dusted or cleaned with a quality furniture polish. Woods for exterior use require no finish or routine maintenance. Over a period of time these exterior woods will weather to a warm, pewter gray and the texture of the wood will become more pronounced. This is a natural process that does not affect the structural integrity of the product. Staining, painting or varnishing are not recommended for exterior woods because this natural weathering process would make periodic refinishing a necessity.

Woods And Finishes

Below is a quick overview of the woods and finish used at Landscape Forms. Our LF-80 finish has been specially formulated to protect our interior wood products without masking the beauty of the grain.

Mechanical Properties										
Category	**Kebony**	**Bamboo**	**Ipe**	**Jarrah**	**Maple**	**Northern Red Oak**	**Redwood (Young-growth)**	**Teak**	**Alaskan Yellow Cedar**	**Thermally Modified Ash**
Drying Method & Moisture Content	Kiln Dry 4%-8%	Air Dry	Air Dry	Kiln Dry 8% - 12%	Kiln Dry 6% - 8%	Kiln Dry 6% - 8%	Kiln Dry 12% - 15%	Kiln Dry 12%	Kiln Dry 15% or less	
Density Lbs/Ft^3	41.8	69	64	54	39	47	26	40	29	39
Specific Gravity	0.67		0.92	0.67	0.63	0.63	0.35	0.55	0.48	0.60
Modulus of Rupture (psi)	8,510	11,922	22,600	16,200	15,800	14,300	7,900	13,710	11,354	
Modulus of Elasticity (Million psi)	1.81	2.1	2.92	1.88	1.83	1.82	1.1	1.55	1.30	
Work to Maximum Load [Ability to Absorb Shock] (in-lb per in^3)			27.6		16.5	14.5	5.2	12.0	13.0	
Maximum Shearing Strength (psi)	1,553	3,350	2,060	2,130	2,330	1,780	1,110	1,890	880	
Load Perpendicular to Grain (lbs.). Represents the resistance of the wood to wear and to marring:	1,582		3,680	1,910	1,450	1,290	420	430	500	1,433