

SECTION 061500

WOOD DECKING AND LUMBER

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide labor, materials and equipment necessary to complete the work of this Section, including the following:
1. Wood decking, lumber and timbers for the following applications:
    - a. Decks
    - b. Boardwalk
    - c. Cladding
    - d. Walkways
    - e. Conservatories
    - f. Site furnishings
    - g. Pavilions
    - h. Pergolas
    - i. Dividers
    - j. Porte cochere
    - k. Lattice structures
    - l. Arbors
    - m. Greenhouses
    - n. Paneling
    - o. Ceilings
- B. Related Work: The following items are not included in this Section and will be performed under the designated Sections.
1. Section 061000 – ROUGH CARPENTRY for other rough carpentry work.
  2. Section 062000 – FINISH CARPENTRY for other finish carpentry work.
- C. Reference Standards: Comply with applicable requirements of the following:
1. ASTM D143-14 – Standard Test Methods for Small Clear Specimens of Timber.
  2. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
  3. ASTM D 4761-13, Section 8.5.3.1 – Standard Test Methods for Mechanical Properties of Lumber and Wood-Based Structural Materials
  4. U.S. Lacey Act – Full Compliance as product is from FSC Managed Forest
  5. FSC
  6. ASTM E648-17 "Standard Test Method for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source". The foregoing test procedure is comparable to NFPA No. 253
  7. International Code Council (ICC) Evaluation Service Report (ESR) issued and active, meeting the criteria of Acceptance Criteria AC47: ESR-3756.
  8. ENVIRONMENTAL PRODUCT DECLARATION (EPD) in accordance with ISO 14025, ISO 21930 and EN 15804.

## 1.2 SUBMITTALS

- A. Submittals: Submit under provisions of Division 01.
- B. Product Literature: Manufacturer's product literature describing all components. Include installation recommendations and instructions.
- C. Verification Samples: For each type of decking and lumber.
- D. Certificate of Compliance, Forest Stewardship Council: FSC Controlled Wood, Chain of Custody.
- E. USGBC LEED Submittals Only, Certified Wood: Submit chain-of-custody certificates signed by manufacturer certifying that wood products comply with LEED forest certification and chain-of-custody requirements. Include evidence that mill and fabricator is certified for chain-of-custody or that outsourcing agreements are in place approved by an FSC-accredited certification body. Include statement indicating costs for each certified wood product.
- F. Certificates of Compliance: Submit documentation of the following.
  - 1. MSDS (Material Safety Data Sheet) – Submit a Material Safety and Data Sheet for the wood products supplied on the project.
  - 2. ENVIRONMENTAL PRODUCT DECLARATION (EPD) in accordance with ISO 14025, ISO 21930 and EN 15804.
  - 3. ICC ESR-3756.

## 1.3 QUALITY ASSURANCE

- A. Manufacturer/Vendor Qualifications: Products covered under this Section shall be supplied by a single manufacturer/vendor unless otherwise specified with a minimum of ten years proven production or supply experience.
- B. Installer Qualifications: Installer shall have a minimum of three years proven construction experience and be capable of estimating and building from drawings and details, determining elevations, in addition to proper material handling.

## 1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect materials during shipment, storage and construction against damage.
- B. All units shall be individually strapped to wood pallets or blocking of a minimum thickness to allow the egress of lift forks using high strength strapping.
- C. Store a minimum of 4 inches off the ground in a dry location and cover with polyethylene to protect from contact with materials which would cause staining or discoloration.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURER

- A. Basis-of-Design: Kebony™ Clear Radiata #2637 and #2638, nominal 5/4x6, (22x142mm) by Kebony AS, Tel 855.230.5656, [info@kebonny.us](mailto:info@kebonny.us), [www.kebonny.us](http://www.kebonny.us)

1. Moisture Content:
  - a. Moisture content of 4 to 8 %; all dimensions when net thickness is over 1 inch.
2. Surface:
  - a. S4S (surfaced four sides), E2E (eased two edges). Edges shall be eased to a radius of 3.5mm.
  - b. Rough Sawn. Edges shall be square.
  - c. Custom profiled. Profiles shall be as per plans and specifications.
  - d. Knots/Pitch pockets: May be visible and are a natural occurrence in wood.
  - e. Cupping: Max 1 % of width.
3. Dimensions on Drawings: Nominal and Actual Size shall be listed.
4. Length:
  - a. Lumber shall be supplied at or over specified length for final fit in the field.
  - b. Lumber shall be supplied precision trimmed to specified lengths only when specified in writing.
5. End Coating: No end coating or sealing is required.

- B. Mechanical Properties: Meet or exceed the following when tested in accordance with ASTM D143:

1. Bending Strength (MOR): 5,235 psi, 36.1 MPa
2. Modulus of Elasticity (MOE): 1,798,468 psi, 12.4 GPa
3. Compression Parallel to Grain: 13,200 psi. 1553 psi (Note: Average)
4. Compression Perpendicular to Grain: (Note: Average)
  - a. @ 0.02": 325.5 psi.
  - b. @ 0.04": 1581.5 psi.
  - c. @ 0.10": 2638.5 psi.
5. Average Air-Dry Density: Approximately 42 lb/ft<sup>2</sup>, 670 Kg/m<sup>3</sup>
6. Basic Specific Gravity: Ranges from 0.80-0.91.
7. Max. Swelling: 4% (dry to wet, tangential)

Above values are typical, but not engineering design values. Please contact Kebony for such details if application is outside of those detailed in ESR-3756

- C. Fire Rating, Acute Inhalation, Combustion Toxicity Requirements: Meet or exceed the following.

Lumber supplied shall be fire resistant without the use of any fire-resistant treatments to meet ASTM E84-15a, "Standard Method of Test for Surface Burning Characteristics of Building Materials". The foregoing test procedure is comparable to UL 723, ANSI/NFPA No. 255, and UBC No. 8-1.

D. Environmental Compliance:

1. The natural service life of Kebony woods exceed their natural growth cycle, trap and store carbon and are able to be reclaimed, reused or recycled. Kebony woods do not require for service any petroleum based or inorganic chemical treatments adhesives or coatings. Kebony woods do not require for service any specialized handling storage or disposal procedures and generate zero post-industrial or post-consumer non-biodegradable waste. Kebony woods are also safe for human and animal contact, meet Low VOC emission standards and meet International Building Code and International Residential Code requirements for naturally durable wood.
2. USGBC LEED Compliance Only: Certified Wood: Materials shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
3. ENVIRONMENTAL PRODUCT DECLARATION (EPD) in accordance with ISO 14025, ISO 21930 and EN 15804.

E. Fastening Systems:

1. Kebony wood products #2637 and #2638 uniquely offer four methods of fastening, three of which are patented.
  - a. **Step-Clip for Kebony.** Patented and licensed exclusively by Kebony from Barrette Outdoor Living. The system consists of:
    - custom profiled wood deck boards (#2637 and #2638)
    - custom extruded polypropylene (PP) strips with predefined clip locations and clip shapes designed to mate with the custom profile of the above boards.
    - 15-degree coiled stainless steel ring-shank nails
  - b. **Fastenator Hidden Fastening System.** Patented by Duralife Decking and Railing Systems. The system consists of
    - custom profiled wood deck boards (#2637 and #2638)
    - custom extruded clips with predefined screw locations and clip shapes designed to mate with the custom profile of the above boards.
    - clips include pre-tapped #7 x 2-1/4"
  - c. **Pro Plug System for Wood**
    - custom profiled wood deck boards (#2637 and #2638)
    - Patented Pro Plug Tool for Wood for counterboring and pre-drilling
    - Pre-Cut matching Kebony plugs
  - d. **Face Fastening**

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Prior to starting work inspect the substrate to ensure that it has been properly prepared to accept materials specified in this Section. Commencement of work shall imply acceptance of surfaces and deck conditions.
  1. Review drawings for heavy static items such as planters, hot tubs, sculptures or equipment that will be installed on top of wood decking, lumber and timbers.

### 3.2 INSTALLATION

- A. Install in accordance with manufacturer's instructions and approved submittals including the following:
  - 1. Install materials plumb, true to line, cut and fitted.
  - 2. Scribe and cope as required for accurate fit to adjacent construction.
  - 3. Use manufacturer's recommended fasteners.
  - 4. Fasten tight to supports. Provide shims if there are variations in framing.

### 3.3 CLEANING AND PROTECTION

- 1. Protect from damage during construction operations. Promptly repair any damaged surfaces. Remove and replace work which cannot be satisfactorily repaired.

END OF SECTION