

a) GENERAL

a.1 Section Includes

- A. Composite decking.

a.2 Related Sections

- A. Section 06-1100 - Wood Framing.

a.3 References

- A. ASTM D-7032-04: Standard Specification for Establishing Performance Ratings for Wood-Plastic Composite Deck Boards and Guardrail systems (Guards or Handrails), ASTM International.
- B. ASTM D-7031-04: Standard Guide for Evaluating Mechanical and Physical Properties of Wood-Plastic Composite Products, ASTM International.
- C. ASTM E-228: Standard Test Method for Linear Thermal Expansion of Solid Materials with a Push - Rod Dilatometer.

a.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Structural Performance:
1. Deck: Uniform Load: 100 lbf/sq. ft.
 2. Treads of Stairs: Concentrated Load: 750 lbf/sq. ft., and 1/8" max. deflection with a concentrated load of 300 lbf on area of 4 sq. in
- B. Fire-Test-Response Characteristics per ASTM E-84:

a.5 SUBMITTALS

- A. Product Data: Indicate sizes, profiles, surface style, and performance characteristics.
- B. Samples: For each product specified, one sample, minimum size 5.25 inches long, representing actual product, color, and finish.

a.6 DELIVERY, STORAGE, AND HANDLING

- A. Storage and Handling:
1. Do not dump DuxxBak Composite Decking materials when unloading.
 2. Store on a flat and level surface with supports every 48in. Cover with a non-translucent material.
 3. Never stack decking more than four skids high.
 4. Please refer to installation instructions for additional guidelines on each product at: <https://www.duxxbakdecking.com/technical-info/>

a.7 WARRANTY

- A. Warranty: Limited Warranty against splintering, splitting, rot, decay, or termite damage for a period of 25 years beginning from date of purchase under normal conditions of use and exposure. Please refer to complete warranties at: <https://www.duxxbakdecking.com/warranty-2/>

b) PRODUCTS

b.1 MANUFACTURERS

A. Contract Documents are based on products by: DuxxBak Composite Decking, 1518 S. Broadway, Green Bay, WI 54304.

B. Substitutions: Not permitted under Division 01.

b.2 APPLICATIONS/SCOPE

A. Wood/Plastic Composite Lumber:

1. Material Description: Composite plank consisting of high density polyethylene (HDPE), recovered cellulose, and rice hulls. Each of the product lines are extruded into sizes and shapes described below with the following physical properties:

1. Product Lines:

1) I.Dekk

a) Tongue and Groove (T&G), 1.25in x 5.5in (5.75in overall width)

b) Traditional (S4S), 1.25in x 5.5in

*Both offered in 12ft, 16ft, and 20ft

2) I.Dekk HD

a) Tongue and Groove (T&G), 1.25in x 5.5in (5.75in overall width)

b) Traditional (S4S), 1.25in x 5.5in

c) Heavy Duty Commercial, 1.5in x 8.1in

*T&G and S4S offered in 12ft, 16ft, and 20ft

*HD Commercial offered in 16ft and 20ft

3) DuxxBak Decking, 1.25in x 5.75in (7.3in overall width)

*Offered in 12ft, 16ft, and 20ft

2. Color, Surface, Fastening :

1) I.Dekk

a) Color: Cedar, Driftwood, Mahogany, Walnut, Cool Sand, Rustic Red, and Copper Canyon

b) Surface texture: Brushed one side and brushed one side with wood grain

c) Fastening: T&G through tongue at 55-60deg angle

S4S through face or an approved hidden fastener system

2) I.Dekk HD

c) Color: Cedar, Driftwood, Mahogany, Walnut, Cool Sand, Copper Canyon, and Rustic Red

d) Surface texture: Brushed one side and brushed one side with wood grain

a) Fastening: T&G through tongue at 55-60deg angle

S4S through face or an approved hidden fastener system

1) DuxxBak

a) Color: Cedar, Driftwood, Mahogany, Walnut, Cool Sand, Copper Canyon, and Rustic Red

b) Surface texture: Brushed one side and brushed one side with wood grain

c) Fastening: Through fastening wing at 55-60deg angle

2. Specific Gravity: 1.2 g/cm³ when tested in accordance with ASTM D-792

3. Flexural Properties when tested in accordance with ASTM D-6109:

1) Modulus of Elasticity (MOE)

a) -20°F - 620,000 psi

b) Ambient - 406,000 psi

c) 125°F - 181,000 psi

2) Modulus of Rupture (MOR)

- a) -20°F - 4,041 psi
 - b) Ambient - 2,782 psi
 - c) 125°F - 1,902 psi
4. Hardness when tested in accordance with ASTM D-143: 225 lbs (web) 678 lbs (flange)
 5. Water Absorption when tested in accordance with ASTM D-1037: 1.0% mass
 6. Flame Spread Index when tested in accordance with ASTM E-84: 100
 7. Smoke Development Index when tested in accordance with ASTM E-84, 165
 8. Self-Ignition Temperature when tested in accordance with ASTM D-1929, 806° F
 9. Static Coefficient of Friction Leather when tested in accordance with ASTM D-2047:
Dry: 0.51 - 0.55 Wet: 0.85 – 0.90 \ did not slip
 10. Coefficient of Linear Thermal Expansion when tested in accordance with ASTM E228:
3.58x10⁻⁵ in/in/°F
 11. Fungus Resistance when tested in accordance with ASTM D-1413:
White rot: zero effect Brown rot: zero effect
 12. Termite Resistance when tested in accordance with ASTM D-3345: No attack (Block rating 10)

d.2 ACCESSORIES

A. Fasteners:

1. I.Dekk and I.Dekk HD
 - a) Do Not Use “Composite Screws” or Screws with “Reverse Threads”
 - b) Screws: #7, #8, #9 x 2.25 inch or longer “Trim head” stainless steel or high quality coated composite deck screws. Fastener reconedations found at:
<https://www.duxxbakdecking.com/technical-info/>
 - c) 8d x 2.5 inch of longer stainless steel or high quality coated ring shank “siding” nails
 - d) Traditional (S4S) plank can be installed with approved hidden fastener system found at:
<https://www.duxxbakdecking.com/technical-info/>
2. DuxxBak Decking
 - a) Do Not Use “Composite Screws” or Screws with “Reverse Threads”
 - b) Screws: #7, #8, #9 x 1.25 inch or longer “Trim head” stainless steel or high quality coated composite deck screws. Fastener reconedations found at:
<https://www.duxxbakdecking.com/technical-info/>

f) EXECUTION

f.1 EXAMINATION

- A. Install products according to DuxxBak Composite Decking Installation Guides found at:
<https://www.duxxbakdecking.com/technical-info/>
- B. Cut, drill, and rout using carbide tipped blades.
- C. Do not use composite wood material for structural applications.

f.2 CLEANING

- A. Follow instructions for Care & Cleaning tips found at: <https://www.duxxbakdecking.com/care-and-cleaning/>