Composite decking specification

PART 1: GENERAL

1.1 SECTION INCLUDES
A. Composite decking.

1.2 RELATED SECTIONS
A. Section 06-1100 - Wood Framing.

1.3 REFERENCES

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

1.5 SUBMITTALS
A. Product Data: Indicate sizes, profiles, surface style, and performance characteristics.
B. Samples: For each product specified, one sample.

1.6 DELIVERY, STORAGE, AND HANDLING
A. Storage and Handling:
   1. Never dump TimberTech materials when unloading.
   2. Store on a flat surface and cover with non-translucent material.
   3. When carrying TimberTech boards, carry on edge for better support.
   4. Refer to installation instructions for additional guidelines on each product.

1.7 WARRANTY
A. Warranty: Limited Residential Warranty against rot, decay, splitting, checking, splintering, or termite damage for a period of 25/30 years beginning from date of purchase under normal conditions of use and exposure.

PART 2: PRODUCTS

2.1 MANUFACTURERS
A. Contract Documents are based on products by: TimberTech Limited, 894 Prairie Avenue, Wilmington, Ohio 45177.
B. Substitutions: Not permitted under Division 01.

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2.2 APPLICATIONS/SCOPE

A. Wood/Plastic Composite Lumber:
   1. Material Description: Composite board consisting of high density polyethylene (HDPE) and wood flour, extruded into sizes and shapes indicated with the following physical properties:
      1) EasyClean Edge and Edge+: 136mm wide, 24mm thick, 3.6m length grooved and 3m length ungrooved.
      2) EasyClean Terrain+ and EasyClean Reserve: 136mm wide, 24mm thick and 4.8m lengths.

B. Colour:
   1) EasyClean Edge and Edge+.
      a) Surface texture- Grained with Protective Polymer Sleeve
      b) Edges are Smooth for face fastening, or Grooved for CONCEALoc®
   2) EasyClean Terrain+ Silver Maple.
      a) Surface texture- Grained with Protective Polymer Sleeve
      b) Edges are Smooth for face fastening, or Grooved for CONCEALoc®
   3) EasyClean Reserve.
      a) Surface texture- Grained with Fully Protective Polymer Sleeve
      b) Edges are Smooth for face fastening, or Grooved for CONCEALoc®

C. Specific Gravity: 1.2 g/cu. cm. when tested in accordance with ASTM D-792.

D. Flexural Properties when tested in accordance with ASTM D-6109:
   1) Modulus of Elasticity (MOE): 542,200 psi. - Ultimate
   2) Modulus of Rupture (MOR): 3157 psi. - Ultimate

E. Hardness when tested in accordance with ASTM D-143: 225 lb (101.25 kg).

F. Water Absorption when tested in accordance with ASTM D-1037, %vol. <1.35%, %mass <1.29%.

G. Flame Spread Index when tested in accordance with ASTM E-84: 75

H. Direct Screw Withdrawal Force when tested in accordance with ASTM D-1761: 787 lbs/in.

I. Slip resistance when tested in accordance with ASTM F-1679:
   EasyClean Edge, Edge+, Terrain+, Reserve
   Dry: 0.50 Wet: 0.45

J. Smoke Development when tested in accordance with ASTM E-84, 200.

K. Flash Ignition Temperature when tested in accordance with ASTM D-1929, 651 degrees F.

L. Spontaneous Ignition Temperature when tested in accordance with ASTM D-1929, 788 degrees F.

M. Coefficient of Linear Thermal Expansion when tested in accordance with ASTM D-696: length 2.0x10^-5 in/in/°F, width 3.4x10^-5 in/in/°F.

N. Fungus Resistance (Brown/White Rot Fungus) when tested in accordance with ASTM D-1413: No decay.

2.3 ACCESSORIES

A. Fasteners:
   a. Concealed Fasteners: CONCEALoc® hidden fasteners
   b. Screws: No. 8, 2-1/2 inch stainless steel or high quality coated composite deck screws.

PART 3: EXECUTION

3.1 EXAMINATION

A. Install according to manufactures instructions.
B. Cut, drill, and rout using carbide tipped blades.
C. Pre-drill holes located closer than 1 1/2 inches from ends of board.
D. Cut ends square.
E. Do not use composite wood material for structural applications.

3.2 CLEANING

A. Clean surfaces regularly with a composite wood cleaner. Call TimberTech for details.
B. Power wash with a fan tipped nozzle in the direction of the grain of the boards with a maximum of 1500 psi.