



SPECIFICATION DATA

SPECIFICATION FOR COMPOSITE TIMBERS

DESCRIPTION

1.01 This work shall consist of furnishing and installing Composite Timbers. This work will include all equipment, materials, labor and all else necessary to install the composite timbers as shown on the plans. Composite Timbers shall be produced by American Composite Timbers, Inc. or engineer approved equal.

MATERIALS

2.01 Composite Timbers - Composite Timbers shall be extruded from recycled polyethylene and be reinforced with glass fibers to produce continuous and homogenous sections with no joints. The approximate percentages of component parts shall be as follows:

- Recycled Polyethylene, HDPE = 70%
- Recycled Polyethylene, LDPE = 10%
- Glass Reinforcing Agent = 20%

Composite Timbers shall have additives to ensure U.V. Stabilization and Flame Retardency totaling no more than 2%. Composite Timbers shall offer the following mechanical and physical properties:

Mechanical Properties

Property	ASTM Test ID	Value (psi)
Modulus of Rupture	D198	3,055
Modulus of Elasticity	D198	10" – 603,500 3" – 355,000 2" – 238,000
Compressive Strength	D6108	2,670
Compression Parallel to Grain	D198	2,080
Compression Perpendicular to Grain	D198	1,110
Tensile Strength	D198	1,360

Physical Properties

Property	ASTM Test ID	Value (psi)
Density (min)	D611	45 lbs/cubic ft.
Specific Gravity	D611	1.08
Coefficient of Thermal Expansion (max)	E228	0.000064 in/in/°F

2.02 Warranty - Composite Timbers shall be warranted not to corrode, rot, warp, splinter or crack for a minimum of 25 years.

CONSTRUCTION DETAILS

3.01 Composite Timbers shall be cut, beveled, drilled, countersunk and otherwise fabricated in accordance with the manufacturer's recommendations. Composite Timbers shall be handled and stored in a manner that will minimize scratching and damage to the outer surface. Composite Timbers shall be bundled and fully supported during shipping and storage.

METHOD OF MEASUREMENT

4.01 The quantity of Composite Timbers to be paid for under the work specified will be the number of linear feet installed in accordance with the plans and this specification.

BASIS OF PAYMENT

5.01 The unit price bid per linear foot for the Composite Timbers shall include all costs for material, labor, equipment, fasteners and any other items required for completing the work including storage costs, disposal of unused materials and transportation costs.

5.02 Payment will be made under:

Pay Item	Pay
Composite Timber	LF