

SPECIFICATION SHEET # 1301, TRESTLEWOOD II POLES
September 14th, 2009

1. Species

Douglas Fir

2. Source

Piling of Lucin Cutoff Railroad Trestle--Great Salt Lake

3. Moisture Content

Water saturated (often with significant air drying)

4. Metal/Holes

Often the butt (large diameter) ends of Trestlewood II poles contain either (1) a few 1" diameter holes where metal has been removed or (2) metal which has been cut flush to the surface of the pole.

5. Surfacing

As-is, weathered poles

6. Dimensions

Typical Trestlewood II pole diameters range from 10" to 20"+. The amount of taper varies from pole to pole, but is usually relatively gradual: a good rule of thumb is 1" change in diameter per 12-14' of length. A 40' Trestlewood II pole with an 11" tip would often have a butt diameter of approximately 14".

7. Weight

Typically, approximately 4 pounds per board foot

8. Grading/Strength

Trestlewood II timbers cut from Trestlewood II poles can often be graded. Timbers are graded with exception taken for any holes, notches, etc. It is highly recommended that any Trestlewood II timbers that are to be used in a structural application be graded. A high moisture content should be assumed when consulting design value tables. See also: "Strength" section of Trestlewood II Features/Issues summary.

9. Stability

Trestlewood II poles and timbers/lumber cut therefrom have proven to be stable. Like all wood, undried Trestlewood II will experience some shrinkage and develop seasoning checks as it dries. The drying process also often widens any "prior use checking" associated with Trestlewood II's life of service as railroad trestle piling. Trestlewood II does not, in general, twist or warp as much as green poles, timber or lumber.

10. Salt/Minerals

Trestlewood contains significant amounts of salt and other minerals (often 20%+ by weight), creating special characteristics and/or considerations like those described in the following items.

11. Color

The coloring of individual Trestlewood II timbers or boards cut from Trestlewood II poles varies widely, from normal Douglas Fir coloring to color combinations unique to Trestlewood II. Surfacing and finishes impact final timber coloring. Color variations are more noticeable in planed timbers than in circle-sawn or band-sawn timbers.

12. Finishes/Glues

Certain finishes and glues do not work well with Trestlewood II. Most importantly, **DO NOT USE WATER-BASED FINISHES**. We tend to favor penetrating oil finishes on Trestlewood II poles, timbers and other non-killn-dried Trestlewood II products because they allow the wood to breathe, thereby facilitating efficient air drying.

13. Fire Retardance

Schuller International performed an ASTM E-84 Flame Spread test on a Trestlewood II piling sample in January, 1995. The resulting index value was 16, well below the maximum index value of 25 for a Class I fire retardant. Normal Douglas Fir has a flame spread index of 70 to 100. Only a few wood species have flame spread index values less than 75. Fire retardant treatments are generally necessary to meet Class I (and often to meet Class II.) Trestlewood has not done any tests to determine whether the fire retardant qualities (if any) of the butt ends of Trestlewood II piling differ from the fire retardant qualities of below-water portions of Trestlewood II piling.

SPECIFICATION SHEET # 1301, TRESTLEWOOD II POLES
September 14th, 2009

14. Metal Corrosiveness

Trestlewood II can have a corrosive effect on metal fasteners, machinery and saw blades. High grade stainless steel fasteners should be used in lieu of regular steel fasteners, especially in applications involving the likely mixing of Trestlewood II, moisture and oxygen.

15. Moisture

Trestlewood II absorbs moisture more readily than typical Douglas Fir. Trestlewood II poles (especially poles with air dry time) should be handled, stored and transported carefully to minimize any unnecessary reabsorption of moisture. Trestlewood II products should only be used in humid environments after you have carefully considered Trestlewood II characteristics and the implications of those characteristics for your application.

16. Odor

Wet Trestlewood II poles often have a Great Salt Lake and/or musty smell to them. This odor is especially strong as wet poles or timbers/lumber cut from poles are being cut or otherwise processed. It tends to become less and less of an issue as Trestlewood II products are allowed to air dry and are kept dry. Our experience suggests that a Trestlewood II odor is most likely to be noticeable in situations involving moisture or high humidity; limited ventilation / air circulation; and/or uncoated/unsealed Trestlewood II products. We believe the most important step in minimizing Trestlewood II odor issues is to control moisture by facilitating the efficient air drying of non-kiln-dried Trestlewood II products and minimizing any reintroduction of moisture.

17. Salt Leaching

As moisture is drawn out of Trestlewood II poles and timbers/lumber cut from Trestlewood II poles, it brings salt with it. Salt leaching tends to be the most concentrated at knots and pole/timber/lumber ends, but can happen anywhere. Air dry time reduces, but does not eliminate, salt leaching. Approaches to salt leaching include sanding and refinishing impacted areas to doing nothing (and letting the salt serve as one of the most visible evidences of the history and reclaimed nature of Trestlewood II products.) Salt is more visible on planed products than on circle-sawn, band-sawn or weathered products.

18. Additional Information

See the current Trestlewood II Features/Issues summary for additional information about Trestlewood II characteristics and their practical implications. This summary is for informational purposes only and is not a part of the Trestlewood II timbers specification sheet.