

How Many Decks Are You Going to Build?

Why is it that decks, our Great Northwest-get-away place, only last a decade or so? Roof structures are commonly made of wood and they can last for centuries so why not decks? Chemically pressure treated roof rafters, trusses, joist, planks or plywood aren't commonly used, why don't they rot? How does one build a deck once, right?

What causes wood to rot? Rot is the breaking down of an organic mass. Wood rot is natural. Wood, moisture, oxygen and warmth are all simultaneously required for rot to occur, and limit the degree of the wood's exposure to one or more of these components, and rot slows. Take away one of these components, and wood rot stops.

What about the new plastic or engineered lumbers?

Besides them not having a history, let's look at the facts. The top of the deck is not the primary reason for most deck failures. The surface boards are readily available for oiling, staining, or treatment to keep them from immediate decay. Any twisted, broken or rotted lumber is replaceable with little problem. Even when meticulous care is provided to the deck top the backbone of the deck is

neglected. The backbone fails due to the wood structure's supports and fasteners getting wet. They hold moisture where they are jointed and go through freeze, thaw cycles. Joist and beams left to nature rot or loose hold of fasteners due to the fasteners rusting, lumber's interior rot or because of the treated soft lumber's poor holding power. Deck failures occur when the deck becomes unstable or unable to support a load, not because it looks ugly or it's getting too costly to maintain. Plastic lumber does nothing to increase the life of the supporting structure, and therefore is not the fix one would hope.

What about treated lumbers?

Over the years as our deck lumber quality and longevity diminished, people have sought deck-tops requiring less maintenance. Chemically treated materials have become common place in the deck market. Improvements to these lumbers have been made, incising, and pressure provide a means to maximize chemical treatment saturation but do not insure 100% penetration of the lumber, thus the inner core is commonly still untreated. The harder, stronger woods do not absorb liquids very well, if at all. Therefore the stronger wood products are not treated

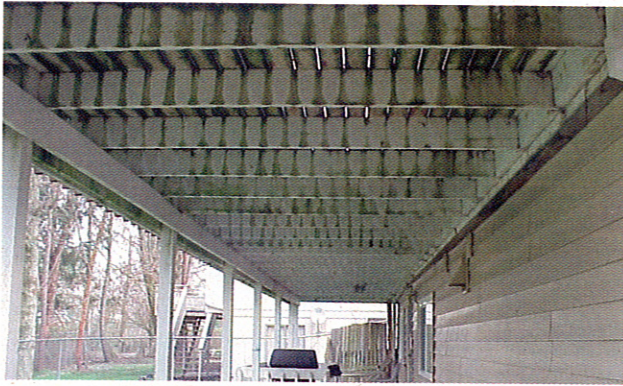
and softer wood lumbers are. Softer woods have less structural strength and fastener holding power allowing screws or nails to lose their hold.

Fasteners penetrate the wood to the inner core allowing water to infiltrate the untreated areas. The sun bakes the deck's wood surface causing ever widening cracks, which in turn allow deeper moisture penetration. Freeze thaw cycles widen surface splits while attacking and breaking down the wood surrounding the deck fasteners. This causes even more moisture retention, ice breakdown, fastener breakdown and rot damage while the chemicals themselves may promote fastener corrosion. The lumber joints, whether butted, sistered or laid together, remain wet for days allowing further breakdown, diminishing the deck integrity until finally, complete structural failure occurs.

Treated docks fail, and that proof is everywhere – just take a drive to any water's edge and look. No, treated lumber only addresses the decay and insect infestation issues and therefore is also not the fix one would desire.

Build it once right

1. Only use ground contact lumber where required by building code



2. Use Douglas Fir framing lumber when possible
3. Use 3/4 in. CCX or better Cross Banded tongue and groove plywood
4. Climatize all lumber and plywood before installing
5. Glue and screw the deck plywood
6. Provide plenty of ventilation to the joist and underlying lumber.
7. Slope the top surface to allow water run-off
8. Keep the fasteners from getting wet
9. Keep the support structure from getting wet
10. Use a proven waterproof product

11. Complete a moisture survey (non penetrating) of the perimeter and deck field every two years

12. Maintain siding, window, door and post caulking or sealant

13. Recover or replace membrane surface at serviceable life end

Duradek Ltd. deck systems comply fully with the "Build It Once Right" qualifications. Having been protecting sundecks, roofdecks, walkways and porches, including their structures, for thirty years, Duradek also has the proof. Duradek Northwest has the

oldest, largest and most experienced local waterproof vinyl deck authorized installer network available. Duradek membranes are thermal plastic, this means they can not peel or flake and need no coating to maintain their warranty. Deck failures can mean much more than just replacing your deck, they are connected to you home or building and rot does not know the difference or boundaries.

For more information on successful deck construction, you may call Duradek Northwest at (800) 442-9215 or visit their website at www.duradeknorthwest.com ■

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