

Coating: Tips for Durable Exterior Wood Construction

Key Point	Don't, for example:	Do:
Wood performs best when it can dry out if it gets wet.	Use completely impermeable coatings.	Pick coatings which exclude liquid water, but allow water vapour through.
Wood takes up water rapidly via end grain.	Cut factory finished siding and leave ends uncoated.	At least prime all end grain before assembly.
The second most rapid uptake is through cracks.	Use woods prone to cracking for painted applications.	Use dimensionally stable woods for painting.
Wood wets up less if the duration of exposure to liquid water is short.	Design horizontal painted surfaces.	Ensure all painted surfaces are sloped or vertical. Provide drip edges to shed water.
Mostly you get what you pay for.	Expect a cheap coating with impressive claims to be as good as its expensive competitor.	Seek peer opinions on coating performance.
Coating formulations are always changing though the name stays the same.	Pick a coating based on performance 10 years ago.	Get up to date opinions on coating performance.
Some water-based coatings now match the performance of oil-based.	Pick a coating based on out of date information.	Read up on advances in coating technology.
Coatings do not adhere well to light-affected wood. Visible light is almost as bad as UV.	Leave wood exposed to sun-light before coating.	Use factory-finished wood where possible. Sand to a fresh surface prior to coating.
Transparent coatings transmit visible light that damages wood.	Use a clear coating outdoors.	Pick a coating with trans iron oxides, HALS and UVA.
	Expect more than 2 years life from transparent coatings without a protective pre-coat.	Use opaque coatings or apply a light-protective pre-coat.
Paint can reduce water entry, but it can also stop water leaving.	Paint one surface only.	Apply paint on all sides.
	Leave paint unmaintained.	Re-finish regularly.
Wood expands as it absorbs moisture and contracts as it dries.	Expect paint on exterior wood products not to crack. Paint is permeable to water vapour.	Expect paint to crack and let in moisture. Use durable or treated wood if a long service life is required.
	Rely primarily on caulking for water management or air sealing.	Design so caulking is virtually unnecessary. Then apply the best caulking available.
Once a coating fails, light damage and fungal growth dramatically reduce the life of subsequent re-coats.	Wait for signs of coating failure before re-coating.	Anticipate coating failure and re-coat while still good.
	Re-coat over failed coating and damaged wood	Sand off damaged coating and wood prior to re-coating. Fungi will still be present.

For more detailed information see www.durable-wood.com

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