



Wood decay occurs when unprotected wood is exposed to damp conditions over time. Mold spores develop, sending root-like feelers into the wood. These feelers produce enzymes that break down wood fibers as a food source. As the wood fibers break down, the structural integrity weakens until the wood is completely destroyed.

### CAUSES & PREVENTION

#### FUNGAL GROWTH

Wood decaying fungi are reliant on three conditions to grow. Eliminate any one of the three, and fungal growth will not take place.

1. Oxygen is necessary for wood decaying fungi to thrive. Unfortunately, this condition is nearly impossible to eliminate.
2. Temperatures between 50° and 80°F (10°-27°C) will promote fungal growth. Conversely, steady exposure to normal weather extremes, hot or cold, will slow fungal growth, but not kill it.
3. Moisture has the greatest effect on fungal growth and is the most easily controlled of the three conditions. Any wood that is 20% or more saturated with moisture is vulnerable to wood decay. Moisture must be controlled on both the interior and the exterior.

#### IDENTIFYING WOOD DECAY

Wood may have decay if any of the following are present:

- Dark spots of mildew
- Flaking paint
- Changes in wood color
- Soft spots

Advanced stages of wood decay are more apparent:

- Sweet, aromatic smell
- Brown and crumbly, or white and spongy sections of wood
- Wood easily gives when prodded with a knife or screwdriver

#### CONTROLLING MOISTURE

Interior moisture is an underestimated and often unseen catalyst of wood decay. Many activities or unwise building techniques contribute to high interior moisture. Showers and kitchens that are un-vented or vented to the interior of the house (e.g. the basement or attic) contribute the most to interior humidity. Here are a few methods for controlling interior moisture:

- Vent all appliances to the outdoors.
- Run exhaust fans in kitchen and bathrooms.
- Turn humidifiers down as the temperature outside gets colder (if used for medical purposes, consult a doctor).
- Use a dehumidifier.
- Don't dry firewood inside.
- Use a ceiling fan to better circulate the warm room air toward the windows.

Exterior moisture can also be controlled. While the environmental conditions are unalterable, water should always be directed away from the structure.

- Install rain gutters and keep them clear.
- Point sprinklers away from windows and patio doors.
- Do not wash windows or patio doors with a garden hose.
- Increase the depth of roof overhang (eaves).
- Remove or trim shrubbery close to windows/doors to promote air circulation

#### CARE & MAINTENANCE

Proper care and maintenance of wood products is critical to the prevention of wood decay. Wood products that are not properly sealed run a high risk of developing wood decay. An annual inspection of all exposed wood members is essential.

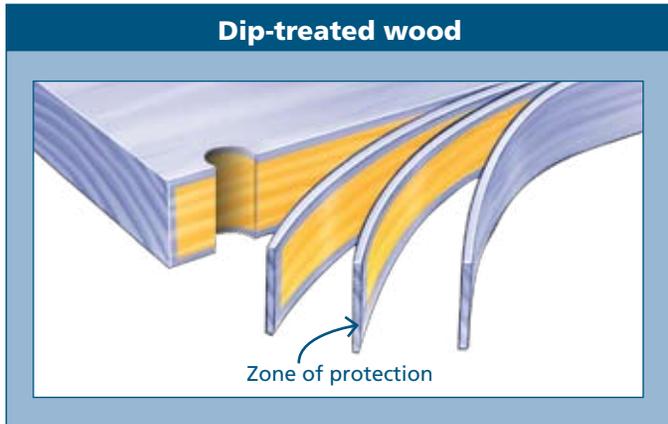
- Paint new wood products according to paint manufacturer's instructions within 20 days of delivery.
- Seal all joints and corners to prevent water infiltration.
- Repair any cracks or damage to the paint immediately.
- Re-touch caulking as soon as cracks appear.

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SOLUTIONS

**WOOD PRESERVATIVES**

Many window and door manufacturers preserve their wood products with a dip process anti-fungicide. This process offers an outer layer, or zone, of protection. If the zone of protection is penetrated by a nail, or punctured any other way, the exposed wood is subject to decay. For this reason it has been difficult for any manufacturer to guarantee their products against wood decay, until now.

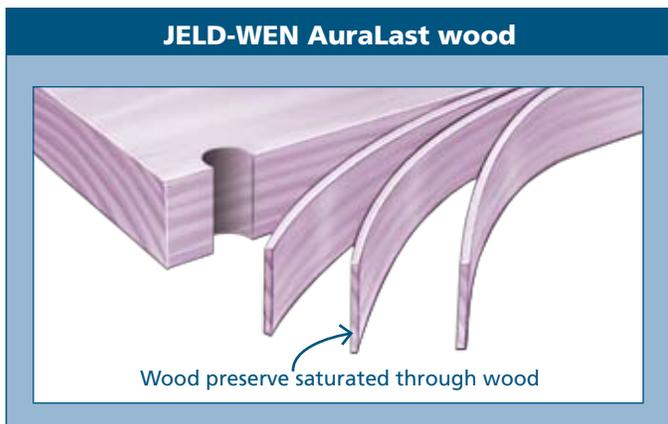


**AURALAST® WOOD BY JELD-WEN**

After years of testing, JELD-WEN has introduced a new pressure process that saturates nearly 100% of the wood. The pressure process is water-based, which eliminates nearly 96% of the hazardous pollutants associated with the dip process.

- Products that JELD-WEN manufactures with AuraLast wood (pine products only) have up to a 20-year warranty against both wood decay and termite infestation.
- AuraLast wood accepts stain (excluding water-based dye stains) and paint just as effectively as raw wood while still retaining the natural beauty of the wood.
- As of July 1, 2004, all U.S. made JELD-WEN pine window products are produced with AuraLast wood.

To find out more about AuraLast wood, visit our website at [www.jeld-wen.com](http://www.jeld-wen.com).



**REPAIR/REPLACEMENT**

If wood decay already exists, determine whether the wood should be repaired or replaced. Replace wood that has decayed enough to affect the structural integrity of the wood. If unsure about the extent of the decay, consult a service technician. Thoroughly document the decay if the wood product is still under warranty. Prior authorization from the service department is required for warranty service.

**WOOD CARE SYSTEMS**

If the structural integrity of the wood is not affected by decay, repair may be the most cost-effective solution. Over the years, science has shown that boron is an effective weapon to combat wood decay. Wood Care Systems, an independent company, has created a system using different boron-based components to fight wood decay. Beyond just killing the fungus and preventing its future growth, Wood Care Systems has developed a way to restore some of the structural stability of a product affected by decay and restore its beauty. To effectively treat a wood decay problem, each step of the Wood Care System must be carried out according to the instructions. Any shortcuts compromise the system's effectiveness. Visit [www.ewoodcare.com](http://www.ewoodcare.com) or call (800) 827-3480 for more information.

**CONTACT US**

For questions, feel free to contact us by phone or email.

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