



The protection of your door is a major factor in its maintenance requirements and longevity. To adequately protect your door and extend its life, several factors must be considered. Door type, climate, exposure, color choice and the use of a storm door all have an effect on the durability of a door.

Every door type weathers differently. Wood doors, for example, are more susceptible to the elements than steel or fiberglass. The following are some guidelines for designing the best combination of door material, overhang protection, and other factors affecting the long-term performance of the door.

Overhang

An overhang as shown is required for wood doors, and recommended for steel and fiberglass doors. Overhangs protect the door's finish, minimize the need for refinishing and help keep the weather out of the home. An example formula for determining the correct overhang (in many climates) is: $D \text{ (Depth)} = 1/2H \text{ (Height)}$. For example, if the measurement from the base of the door to the bottom of the overhang is 10 feet, then the overhang should extend at least 5 feet. This formula can change based on the climate and the direction the door faces. The following section will explain how to modify the formula based on these factors.



Climate and Exposure

Also consider the variables specific to your region. The climate and the direction a door faces play a key role in determining a proper overhang. Typically, southern and western exposures are harshest. With southern exposures, the sun beats down on the door from sunrise to sunset. In western exposures, the door receives sunlight in the hottest part of the day.

Please consult the following chart and adjust the depth of the overhang as needed.

Climate	Direction the door faces			
	North	South	East	West
Desert	$D = 1/2H$	$D = 2H$	$D = 1/2H$	$D = 2H$
Ocean	$D = 1/2H$	$D = H$	$D = 1/2H$	$D = H$
Wet	$D = H$	$D = H$	$D = H$	$D = H$
Mild	$D = 1/2H$	$D = H$	$D = 1/2H$	$D = H$

Without adequate overhangs, doors with a southern, southwestern, southeastern or western exposure will require more frequent maintenance. Doors without appropriate protection may also experience performance problems such as rapid finish deterioration, color fading, wood splitting, warping, moulding shrinkage, wood joint separation, and water penetration between the mouldings, panels, and glass.

With proper overhangs, doors may face any direction (north, south, east or west). Doors installed in these types of applications still require finish maintenance. Wood doors, for instance, may need to be refinished every two to five years.

Color Choice

No matter what type of exterior door is selected, color choice may effect how quickly the exterior of the door weathers in extreme climates. In general, darker colors absorb more heat than lighter colors. The exterior face of a door exposed to the sun in harsh environments can reach temperatures well in excess of 120 degrees. As a rule of thumb, if you cannot hold your hand on the face of the door for more than 30 seconds, the door is too hot. These extreme temperatures can cause noticeable damage to the door including finish deterioration and accelerated color fading.

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Color Choice - Continued

In addition, extreme temperature changes can cause warping, sticking and other performance problems. For doors with little protection or doors installed in hot environments, light colors may help reflect the heat and slow down heat build-up. Depending on the exposure and environment, other precautions (such as overhangs) should be taken to protect the door from the effects of the sun.

Storm Doors

Storm doors provide additional protection for exterior doors in many climates. They shelter the door mainly from rain and wind, though a storm door with dual pane Low-E glass will also block UV rays. In hot climates, adding a storm door may not be a good choice. Heat builds up between the two doors and can cause substantial damage like warping, color fading, and wood joint separation on the door. A storm door in front of a dark colored exterior door can accelerate heat build up even more. Storm doors selected for these situations should be vented to relieve excess heat build-up.

Patio Doors

Steel and fiberglass French and Patio doors have the same overhang requirements as the other entry door types. Provide an adequate overhang to protect them from exposure. Some patio doors are specially built to withstand water intrusion and can be safely placed in locations with more exposure. For more information, consult your product's specific certification information or contact us.

JELD-WEN Warranties

This document provides general information about measures that can be taken to better protect exterior doors, but no warranties are provided by this document. For specific product information and available product warranties please refer to www.jeld-wen.com or contact us at 1-800-JELD-WEN (1-800-535-3936).