

## Technical Tip

# Pressure Washing

The internet is a wonderful thing but when it comes to log homes there is a lot of misinformation posted on various web sites that claim to be experts about log home construction and maintenance. One of the most inaccurate statements that we've come across is the claim that pressure washing a home increases the moisture content of the wood so much that it must be allowed to dry for weeks before a finish is applied. If you don't there is a good chance that the wood will begin to rot away. ***Nothing could be further from the truth.***

Wood cells are shaped like soda straws. As the wood dries the cells get narrower and the "valves" between the cells close. Since the cells run longitudinally along the log there is not much radial transference of water across the grain of the wood so if the sides of the log get wet the water does not penetrate much deeper than the first few layers of cells. That's why it takes the addition of glycols to borate solutions to get penetration into a log along its length. On the other hand the cells on the log ends are open and water can certainly soak into the wood but it can also evaporate out of the wood just as easily. In other words, even pressure washing won't drive water into the side of a log more than a 1/16<sup>th</sup> of an inch or so. In warm dry weather the wood will be dry within a few hours.

The reason it's important to allow a day for a home to dry after pressure washing is the water that accumulates in any checks and fissures. They will take a bit longer to dry out than the sides and ends of a log and it's important not to have any puddles of water in a check when it comes time to apply a finish. It's also very important that any checks be well rinsed out when pressure washing after applying a chemical stripper or cleaner. We've seen a number of situations where stripper or cleaner residue left in checks has resulted in subsequent adhesion issues.

So when should a home be pressure washed? We've had a number of homeowners who were disappointed with results they obtained trying to remove an existing finish with a chemical finish remover and a garden hose. Their expectation was that the chemical finish remover would dissolve the finish and all they had to do was to wash it away. That's not the way finish removers work. They soften the existing finish so that it can be peeled off the surface and it takes the power of a pressure washer to accomplish this. Cleaning bare wood usually requires pressure washing to get all of the dirt and discolorations out of the top layer of wood fibers. It will also help remove any mill glaze that may be present.

When is pressure washing not required or recommended? It definitely is not recommended for maintenance cleaning an existing finish. You never want to damage your beautiful Lifeline finish with an overly aggressive pressure washing. After media blasting or sanding we recommend washing the surface of the wood with a Log Wash solution to clean off any dust particles as well as pollen or other contaminants that may be adhering to the wood. In this case either a garden hose or a light pressure washing will work. All you need to do is rinse the surface with enough water to wash off the Log Wash and the dirt.

Selecting the right pressure washer for the job is critical. You want a general purpose pressure washer that puts out at least two to three gallons of water per minute. Small electric pressure washers may generate enough pressure to work but they only put out about ½ gallon per minute. All they end up doing is moving the dirt or stripped off finish down the wall a bit. You need enough water volume to wash whatever you are removing completely down the wall and onto the ground. Hot water or steam pressure washers are overkill and if the operator is not careful, they can seriously damage the wood.

General Purpose Pressure Washer



Hot Water Pressure Washer



Proper Technique for Pressure Washing

