

Ask Jon Eakes

Solidifying rotting wood in a log cabin with Epoxy.

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Update 2025 to the product availability listed below.

US Coatings is marketing a product very similar to BCS under the brand name Abatron, which for Canada is much easier to source than my old stand-by BCS. It is encouraging as a quality endorsement that LeeValley Tools is selling this brand, which tells me I can count on it as I have always counted on BCS.

LeeValley sells the basic Abatron "Kit" as well as the 2-part sealer and filler separately. You can also find it on Amazon.ca (search "Abatron wood restoration kit") with more selection than LeeValley, but the same price. I would choose to support the Canadian company LeeValey rather than Amazon if the standard kit works for you. In addition, some of the extended Abatron product listings on Amazon are not fully supported by Amazon, indicating some customer problems, probably delivery.

Wood Restoration is the process of using a very liquid penetrating epoxy mix to saturate wood, strengthening the fibers at the same time killing fungi. This is not an epoxy adhesive, but a penetrating liquid that changes the structure of wood. Then a thick putty like epoxy is used to fill in, such as on the centers of logs next to the corner saddles in a log cabin.

This material has the unique characteristic that it can be effectively applied to wood that is surface dry but having up to 30% moisture content. For this reason it is widely used by wood turners to solidify beautiful rotting wood for turning bowls. It is also effective at rebuilding rotting wood around the house, like the bottom of porch columns and wooden window sills. It follows the moisture in the wood, penetrating as much as 18", not just a surface coating.

Technique

You can simply apply it with a brush, especially to end grain -- then apply it with a brush -- then apply it with a brush. It will drink and drink and drink, all of that flowing into the wood, following any rot and making your repair deeper than you imagine. For a door frame I drilled 1/4" holes downward at 45 degrees and about an inch into the wood. Drill holes all over the area to be treated. Then I took a syringe to "inject" the epoxy, filling holes systematically. By the time you fill every hole, the first one is empty, but eventually the epoxy sets, thickens and the frame will take no more. 10 years later we replaced the door and frame, it was indeed "petrified" through and through.

It is not cheap

To save some money you should use both putty and wood scraps when filling in voids, to minimize how much putty you need. Similar products are available from MinWax and others, but none that I have found that work as well as BCS because it does not require that the wood be perfectly dry. The photos show the steps to restoring rotten wood with the BCS products. Go to WoodRestoration.com for full documentation on this amazing process -- it really works.

Smith & Co. in the US make the BCS product - presently called "Smith&Co Clear Penetrating Epoxy Sealer (CPES). To find local distribution follow this link.

LeeValley Tools sells the Abatron product, easy Canadian distribution.

MinWax makes a "wood hardner" designed to petrify rotting wood as well. It penetrates less, but is also less toxic and easier to locate.

Follow these links for using epoxies for rotten windows, and for rotten doors.

Keywords:

