The EndRot System

Why replace when you can restore? Rot is a fungus and it can spread quickly, infecting, and then destroying sound wood in its path. Replacement can be expensive and time consuming and sometimes nearly impossible outside of a major construction project. System Three has developed a simple 3 step process to stop rot dead in it's tracks and restore damaged wood.

Features:

- Stops the progression of wood rot/decay fungi in your home

- Restores rot or insect damaged wood

- Protects your investment for years

- Restores expensive, difficult to replace architectural components

System Three has formulated solvent-free, unique products that address these common problems.

These products include:

- Board Defense Borate Powder- A product that kills active rot as well as wood destroying insects.

- RotFix- A two-part, low viscosity epoxy that not only stabilizes soft, punky wood, but also acts as a primer for SculpWood Putty. RotFix bonds tenaciously with the wood substrate and forms a permanent chemical bond with SculpWood Putty / Paste.

- SculpWood Putty- A two-part, non-shrinking, moldable putty compound that exhibits excellent sandability, mimicking that of wood.

- SculpWood Paste- A two-part, non-shrinking, spreadable paste ideal for filling cracks and dings on wood components.

For small wood restoration jobs, the EndRot Kit is ideal. For larger jobs, each of the EndRot products are available individually, in larger sizes on their specific product pages at www.systemthree.com.

Before You Begin
What's The Root Cause?
Before beginning a rot restoration project, it's important to determine the source of moisture which led to the rot formation. If the moisture source can be alleviated, then do so. Many times, this is a result of improperly installed flashing, gutters in disrepair, failed caulking or paint, or wood that has come in contact with the ground. Taking time to address the moisture source is critical to the longevity of the rot repair.

Step 1

Excavate Punky Wood / Apply EndRot Borate Powder

Typically, rotted wood contains a significant amount of moisture. Removing the punky, rotted wood is an important first step in the process. This will remove excess moisture and establish better stability before beginning the repair. When possible, remove the punky wood down to the point of good wood. Once good wood has been exposed, EndRot Borate Powder can be applied to the affected area. Add powder at 1.5 Tbsp per oz. of water, for an approximate coverage rate of 1 sq. ft.

The wood substrate should be reasonably dry before beginning the repair. Implementing a space heater or heat gun will speed up the drying process. In cases where the wood member is saturated with moisture, some time may be required to get the moisture level down.

Step 2

Apply RotFix Penetrating Epoxy

Once the moisture level has dropped, RotFix penetrating epoxy can be applied. Measure two parts Resin (Part A) with one part Hardener (Part B) and thoroughly mix. Mix only enough RotFix penetrating epoxy that can be easily used within 10 minutes. Brush RotFix over the affected area. Some wood substrates are very porous and will absorb the RotFix rapidly. A second coat may be necessary.

Note: SculpWood Putty / Paste can be applied over RotFix immediately, or up to 72 hours later without sanding. If RotFix has cured longer than 72 hours, degloss the surface with sandpaper or a soft, flexible abrasive pad. Apply fresh RotFix.

Step 3

Apply SculpWood Putty / Paste

Mix equal parts of SculpWood Putty Resin (Part A) with Hardener (Part B) until a consistent color is achieved. Pack the SculpWood Putty into the cavity, avoiding gaps and air pockets. Slightly overfill the cavity with SculpWood Putty. Additional layers can be added as long as the SculpWood is still soft and pliable. If the SculpWood Putty has hardened, simply abrade the surface with sandpaper and apply a coat of RotFix epoxy. Allow the RotFix to cure to a tacky state and then apply the SculpWood Putty.

SculpWood Putty can be sanded when the surface resists fingernail denting. In room temperature conditions this usually occurs within 5-7 hours. Cooler temperatures will extend the cure time, while warmer temperatures will reduce the cure time. Abrade SculpWood Putty with a sanding block and 100-150 grit paper. Belt sanders or random orbital sanders can be used judiciously.

Note: On larger repairs, chunks of dry, RotFix treated wood can be incorporated. Make sure that the wood blocks are fully covered with SculpWood Putty. Carefully pack SculpWood Putty around the blocks, avoiding gaps and air pockets. The repair should contain no less than 50% SculpWood Putty.

Apply SculpWood Paste

In some situations, SculpWood Putty is too thick for the repair. SculpWood Paste is smooth and spreads easily into small cracks and voids. When repairing damaged or weathered wood components that do not have rot, the use of RotFix epoxy is not required. For repairs that include rot, treat with RotFix penetrating epoxy. SculpWood Paste can be spread over RotFix immediately after application or up to 72 hours without sanding.

Mix equal parts SculpWood Paste Resin (Part A) with Hardener (Part B) until a consistent color is achieved. Spread SculpWood Paste evenly over the surface. Slightly overfill voids and cracks to ensure sufficient material is available for sanding. At room temperature SculpWood Paste reaches a sandable state in 6-8 hours. Cooler temperature will extend the cure time, while warmer temperatures (above room temperature) will reduce the cure time. Abrade SculpWood Paste with a sanding block and 100-150 grit paper. Belt sanders or random orbital sanders can be used judiciously.

Additional layers can be added, as long as the SculpWood Paste is still soft and pliable. If SculpWood Paste has hardened, simply abrade the surface with sandpaper, clean and apply more SculpWood Paste.

Apply Oil Or Waterbase Primer And Paint

Both oil based or waterbased primer and paint can be used with the EndRot products. Primer and paint can be applied once the EndRot products reach a sandable state. Once sanding is complete, thoroughly clean the surface of loose debris. Apply the primer and paint according to the manufacturer's instructions.

How Much Do You Need?

EndRot Borate Powder		RotFix Epoxy Coverage	
2 oz. Package + 16 oz. water = 20 sq. f.t of coverage		3 oz.	2 sq. ft.
1 lbs. Package + 128 oz. water = 150 sq. ft. of coverage		1.5 Pint Kit	20 sq. ft.
1.5 TBSP EndRot Borate Powder to 1 oz. of water covers		1.5 Quart Kit	40 sq. ft.
approximately 1 sq. ft.		1.5 Gallon Kit	150 sq. ft.
SculpWood Putty		**SculpWood Paste**	
8 oz.	15 cubic inches	4 oz.	.4 sq. ft.
1-Quart Kit	58 cubic inches	1-Quart	3 sq. ft.
2-Quart Kit	116 cubic inches	2-Quart	6 sq. ft.
2-Gallon Kit	462 cubic inches	2-Gallon	25 sq. ft.
Cubic inches= Width x Depth x Length		**Calculations based off of 1/8" thick spread rate.**	

Cleanup:

Discard disposable brushes once the RotFix Epoxy has hardened or clean with lacquer thinner.   White vinegar is also useful for cleaning tools, brushes, while the epoxy is still wet.