



Wood Treatment and Preservation Products

We know wood rot and how to repair it!

We are available 7 Days a week
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System Three General Purpose Epoxy Resin

General Description

System Three General Purpose (GP) Epoxy Resin. The system formulation, containing one resin and your choice from one of three curing agents or hardeners, contains a significant amount of renewable materials. Long before "green" was in vogue the System Three General Purpose Epoxy System contains as much as 30% plant derived materials and is VOC-free (Volatile Organic Compounds).

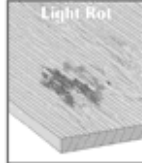
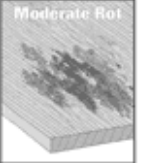
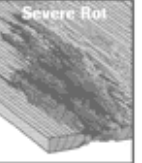
Use at a simple 2:1 volume ratio with any of the three hardeners. Use at temperatures as low as 35°F (2°C) with no limitations on humidity. The medium-low viscosity of System Three General Purpose Epoxy allows for use as is, for coating and fiberglass work. Combine with different fillers to make adhesive, filleting and fairing compounds.

It has excellent pot life and cure-time control. When selecting a hardener, consider the minimum temperature expected during application and the desired working time. Different General Purpose Epoxy Hardeners can be combined in a batch to provide a custom pot life and cure time.

Keep in mind when choosing a hardener, that the cooler the temperature the longer the curing time – the warmer the temperature the shorter the curing time. Times below are at 77°F (25°C) for each of the hardeners.

Application Guide


The following diagrams and steps show the application process based on the severity of rot. Of course, each rot situation is unique and what you do will depend on what you're dealing with—but these basic techniques will get you started. The folks at **THE ROT DOCTOR™** will answer any questions and give you technical advice via email or by phone if you can't find the answer on our web site. We will also examine photos of your project if they are sent to us as jpeg files.

<p style="text-align: center;">Light Rot</p>  <ol style="list-style-type: none"> Brush or dip Penetrating Epoxy on surface of rot, allowing liquid area to absorb all the liquid it can. Let cure 1 to 3 days. Optional: Go back over surface with Epoxy Filler, Putty or Paste if required. 	<p style="text-align: center;">Moderate Rot</p>  <ol style="list-style-type: none"> Remove any badly rotted wood if necessary. Try to get the area as dry as possible. See Note 1. Brush or inject Penetrating Epoxy into and around rotted area. Apply all the liquid the area will accept. Let cure 1 to 3 days. Optional: Follow-up with Epoxy Resin if more fill is required. Apply Epoxy Filler, Putty or Paste into all rotted areas. 	<p style="text-align: center;">Severe Rot</p>  <ol style="list-style-type: none"> Remove chunks of rotted wood. Try to get the area as dry as possible. See Note 1. Drill holes for injection if large timber. Completely coat, some and/or inject Penetrating Epoxy into the area. Apply generously. Make sure liquid flows into all cracks and grooves. Let cure 1 to 3 days. Epoxy Resin can be applied with a brush and/or caulking tube pumped into rotted areas. Let cure 24 hours. Fill rotted area with Epoxy Filler, Putty or Paste or a mixture of Epoxy Resin and fine sawdust, silica, etc. for special situations. See Note 2.
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NOTE 1: If you are not sure how deep the rot is, use a moisture meter. If you have a moisture meter, you can use it to determine the depth of the rot. If you do not have a moisture meter, you can use a moisture meter to determine the depth of the rot. If you do not have a moisture meter, you can use a moisture meter to determine the depth of the rot.

NOTE 2: If you are not sure how deep the rot is, use a moisture meter. If you have a moisture meter, you can use it to determine the depth of the rot. If you do not have a moisture meter, you can use a moisture meter to determine the depth of the rot.

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Temperature Chart

Hardener	Minimum Application Temperature	Gel Time (100g mixture) @ 77°F (25°C)	Tack Free Time Thin Film @ 77°F (25°C)
#1 Fast	35°F (2°C)	15 Minutes	2 Hours

#2 Medium	55°F (13°C)	30 Minutes	4–6 Hours
#3 Slow	75°F (25°C)	60 Minutes	9 Hours

Packaging

GP Epoxy Resin is available in 3 temperature formulations each formula comes in sizes of 1.5 Pint, 1.5 Quart, 1.5 Gallon units.

For Wood Rot

While this resin can be used for a variety of jobs, such as wood construction and repair, gel coat blister repair, and for general fiberglass repair, many of our customers use it as a filler in wood rot repair, either as is, or thickened. The deteriorated wood needs to be treated with S-1 Epoxy Sealer first, before applying the GP Epoxy Resin. Sawdust, milled/chopped fiberglass and fumed silica (Cab-O-Sil®) are all good general purpose products which can all be added to the GP Epoxy Resin as thickeners. The more you add, the thicker the mix. When adding thickener, it's important that the GP Epoxy Resin be thoroughly mixed BEFORE the thickener is added. The thickener is then added slowly while stirring the mixed resin until the desired consistency is reached. GP Epoxy Resin can also be used as a filler or a pourable slurry for voids in fiberglass or concrete.

For Fiber-glassing

Our customers often use GP Epoxy Resin to repair rotted wood. But is an excellent fiber-glassing resin as well. GP Epoxy Resin will wet out fiberglass cloth at the rate of one ounce of resin (by weight) for every ounce (per yard) of fiberglass cloth. For example, one yard of one ounce fiberglass cloth would take one ounce (by weight) of epoxy resin to wet out properly. By volume, this equals approximately two ounces of GP Epoxy Resin per ounce (by weight) of fiberglass cloth. A gallon of GP Epoxy Resin will wet out 10 square yards (8 sq. m.) of 6 ounce fiberglass cloth.

Other Uses

As the name implies, General Purpose (GP) Epoxy Resin can also be used as a general purpose adhesive. Normal coverage when using as an adhesive is approximately 45 sq. ft. per gallon at 1/32" (4.1 sq. m. per 3.8 liters at 0.8 mm.). This is the minimum recommended amount to get a strong glue joint. Any less, and there is a risk of not having enough glue in the joint, commonly referred to as "starving the joint". When bonding rough surfaces it is often necessary to use twice as much glue or more to avoid starving the joint. In these cases, coverage will be reduced by half or more. When clamping glue joints, be careful not to over-tighten the clamps.

NOTE: Bulk mixing (more than two quarts at one time) is not advised. It makes a thorough mix more difficult, and it concentrates more resin in one location which will generate induction heat and further accelerate the set time.

Properties

Mix Ratio by Volume	100:50
Mix Ratio by Weight	100:44
Total Solids	100%
Mixed Viscosity (average)	950 cps
Mixed Color	Light Amber
Tensile Strength	7,500 psi

Tensile Elongation	11%
Flexural Strength	12,500 psi
Flexural Modulus	350,000 psi
Compressive Strength	12,000 psi at yield 22,000 psi at failure
Maximum Service Temperature	160°F (70°C)
Gel Time @ 77°F (25°C)	#1 Hardener: 15 Minutes (100g mixture) #2 Hardener: 30 Minutes (100g mixture) #3 Hardener: 60 Minutes (100g mixture)
Tack Free Time Thin Film @ 77°F (25°C)	#1 Hardener: 2 Hours #2 Hardener: 4-6 Hours #3 Hardener: 9 Hours
Minimum Application Temperature	#1 Hardener: 35°F (2°C) #2 Hardener: 55°F (13°C) #3 Hardener: 75°F (25°C)

ALWAYS MIX THOROUGHLY!
IMPROPER MIXING IS THE GREATEST CAUSE OF EPOXY SYSTEMS FAILURE.
 Be sure to thoroughly scrape sides of mixing container to get all unblended resin.
 If in doubt, transfer first mix into a second container and mix again.

General Purpose Epoxy Resin is a hazardous product. Check the [shipping options](#) page for details on shipping hazardous items. For additional information, refer to the General Purpose Epoxy Resin [Safety Data Sheet](#).



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Order by phone, fax, mail, or e-mail.



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All products ship within 2 business days from both coasts!

Our business hours are 6:30 AM to 5:30 PM Pacific Time, Monday-Friday.
Tech support is available over weekends and holidays.