REBUILD RANGE:
A guide to the products and correct use

Oxera Repair Products - A brief background

Oxera Repair products were founded in 2009 as an own-label manufacturer and quickly became a major supplier to some of the leading household names in the construction and DIY markets.

Rebuild Range was re-launched in 2021, as a comprehensive range of wood repair epoxy resin products. Damaged and rotten timbers in a building are subject to stress and movement and can be difficult to repair. Conventional repair products are not designed for use in these situations and the only alternatives have been splicing or the replacement of the entire unit, at a great expense to the customer and the environment. This is where Rebuild Range offers the perfect solution - enabling durable, efficient and highly effective timber repair.

Our Rebuild products can save the existing unit, saving the customer huge sums of money whilst also minimising the impact on the environment. Often just 5% of the timber is affected, making it hugely wasteful to replace the whole unit.

Rebuild provides long lasting and durable wood repair solutions, guaranteed for 10 years.

Prepare. Repair. Prevent.

Products in the Rebuild Range

Rebuild Stabiliser

Rebuild Stabiliser is a low viscosity, solvent free, two part epoxy based primer developed for use with the Rebuild resin repair system. The low viscosity enables it to penetrate into the timber to help strengthen any soft weak areas that may still be present. It also acts as a primer coat to improve the adhesion of the Rebuild repair paste.

Mixing Ratio 2:1
Penetration Time - 20 Minutes
Curing Time - 12 Hours

Rebuild Resin 1 Hour

A modified, flexible, two-part epoxy resin based woodfiller designed to give superior performance and longevity. This rapid curing, thixotropic repair filler is ideal where a speedy repair is required to damaged or rot affected timber. Suitable as an adhesive and is ideal for splicing applications. Easy to model, excellent cut off properties and maintains its general shape. Once cured, can be machined, drilled, nailed, screwed and coated with any decorative wood finish.

Mixing Ratio 1:1
Working Life - 5 Minutes at 20° C
Curing Time - 50-60 Minutes

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Rebuild Resin 4 Hour

A modified, highly flexible, fast curing, two-part epoxy resin based woodfiller designed to give superior performance and longevity. This non-sag, thixotropic repair filler is ideal for large repairs to damaged or rot affected timber and is particularly suitable for vertical or overhead applications. It is easy to model, has excellent cut off properties and maintains its shape even during curing. Specifically developed to enable repairs to be carried out within the day.

Mixing Ratio 3:1
Working Life - 25-30 Minutes at 20° C
Curing Time - Varies depending on volume mixed and thickness of the curing film. See data sheet for curing table.

Rebuild Resin 4 Hour (Pots)

A modified, highly flexible, fast curing, two-part epoxy resin based woodfiller designed to give superior performance and longevity. This non-sag, thixotropic repair filler is ideal for large repairs to damaged or rot affected timber and is particularly suitable for vertical or overhead applications. It is easy to model, has excellent cut off properties and maintains its shape even during curing. Specifically developed to enable repairs to be carried out within the day. Available in 400ml, 800ml & 1200ml sizes.

Mixing Ratio 3:1
Working Life - 25-30 Minutes at 20° C
Curing Time - Varies depending on volume mixed and thickness of the curing film. See data sheet for curing table.

Rebuild Multi-Purpose Glazing Sealant

A single component, permanent replacement to glazing sealant. It's moisture cured, fast drying, and ideal for glazing around windows. Available in 300ml volume.

Curing Time - 24 Hours

Method of application

Rebuild Stabiliser

Remove all soft, decayed wood with a suitable tool such as a router or chisel until a sound, solid substrate is achieved. Ensure the surface is dry by checking the moisture content (Maximum 18%). All loose friable material should be removed along with any paint from the surfaces to be treated. Sand the surface before application of the stabiliser.

Condition the containers between 15° C and 25° C prior to mixing. Measures are provided to ensure the correct mixing ratio is adhered to, which is 2 parts resin to 1 part activator. Meter the base and activator into a separate container and thoroughly mix taking care to ensure that product from the bottom and sides are thoroughly mixed.

Apply the stabiliser to the affected area with a brush and allow it to penetrate for at least 20 minutes and then remove any excess with absorbent paper.

Rebuild Resin 1 Hour

Cut out and remove all soft, loose and rotten timber and ensure all dust is removed before applying any wood stabilising solution.

Mount the cartridge tube into the extrusion tool. Remove the end cap and extrude the required quantity of filler onto the mixing board. Only mix enough that can be used within the working time – approximately 5 minutes. Mix with a folding action using a putty knife or similar until streak free. This ensures the resin and hardener are thoroughly mixed. Apply small amounts of filler first to ensure air is not trapped within the repair and then build up using larger volumes. Complete the repair by smoothing over the surface before leaving to cure.

Rebuild Resin 4 Hour

Cut out and remove all soft, loose and rotten timber and ensure all dust is removed before applying any Rebuild Stabiliser. See the preparation and user information on Rebuild Stabiliser prior to application of the Rebuild resin.

Press the clutch plate located at the back of the extrusion tool and pull the pistons to the fully back position. Slide the cartridge tube into the extrusion tool ensuring the smaller diameter tube enters first. The diameter of one of the piston plates is slightly smaller to fit the smaller tube. Unscrew the end cap and squeeze the handle to extrude the required quantity of filler onto the mixing board. Remove excess filler from the end of the cartridge and replace the cap.

Mix the two products together with a folding action using a putty knife or similar until the green colour fades and an even coloured mix is obtained. This ensures the resin and hardener are thoroughly mixed. Apply small amounts of filler first to ensure air is not trapped within the repair and then build up using larger volumes. Complete the repair by smoothing over the surface before leaving to cure.

Rebuild Resin 4 Hour (Pots)

Cut out and remove all soft, loose and rotten timber and ensure all dust is removed before applying any Rebuild Stabiliser. See the preparation and user information on Rebuild Stabiliser prior to application of the Rebuild resin.

Product supplied in pots contains the resin base and activator separately. Measure out both using a clean spatula or suitable scoop - 3 parts or scoops of base resin to one part or scoop of activator by weight or volume. Replace the lids once finished. Do not cross contaminate products so ensure clean spatulas are used when decanting.

Mix the two products together with a folding action using a putty knife or similar until the green colour fades and an even coloured mix is obtained. This ensures the resin and hardener are thoroughly mixed. Apply small amounts of filler first to ensure air is not trapped within the repair and then build up using larger volumes. Complete the repair by smoothing over the surface before leaving to cure.

Rebuild Multi-Purpose Glazing Sealant

Start by cutting the tip off the cartridge and screw on the nozzle. Cut off the tip of the nozzle to achieve the desired size for application. Press the clutch plate located at the back of the sealant tool and pull the pistons to the fully back position. Slide the cartridge tube into the sealant tool. Squeeze the handle to gently extrude the glazing sealant to the desired areas around the window.

Health and Safety

Rebuild Range products are classified as irritants, and the hardeners are classified as corrosive. Repeated skin contact of Rebuild products may cause sensitisation.

We recommend wearing nitrile rubber gloves while handling Rebuild products and if product contacts the skin, wash off with soap and water. If irritation persists or a rash appears, seek medical advice.

Safety goggles should be worn when preparing the damaged/rotten timber and applying Rebuild products. We also recommend dust masks to be worn when sanding down using power tools.

Safety helmets should always be worn if working at heights.

For further information refer to the Safety Data Sheet.

Tools required

- Routing tool to remove damaged timber
- Electronic moisture meter
- Mixing board
- Mixing knives / scrapers
- Extrusion tool
- Plastic cup (for Rebuild Stabiliser)
- Brush (for Rebuild Stabiliser)
- Rebuild Stabiliser
- Rebuild Resin of choice
- Sanding paper

Specification methods for repairing timber using Rebuild products

Conservation Joint

For effective restoration, it is advised to use this technique on all joints situated along the lower rails of windows. This holds true whether there's observable decay at the moment or not. These joints are particularly prone to fail, and taking precautionary measures at this juncture will obviate the need for more expensive repairs later on.

Step-by-Step Guide:

1. Use a mechanical router to gently widen the joint to a minimum breadth of 4mm and a depth of at least 10mm.
2. Remove the existing paint surrounding the joint.
3. Use sand paper to sand the interior and vicinity of the joint, eliminating any loose fibers.
4. Verify that the moisture content in the wood is below 18% by using an electronic moisture meter. If the reading surpasses this, you may want to use a hot-air blower to carefully dry out the area, being careful not to scorch the timber.
5. Apply a generous layer of Rebuild Stabiliser over the entire region and let it penetrate for approximately 20 minutes.
6. Mix the necessary quantity of Rebuild Resin 4 Hour and apply it to the joint liberally ensuring to fill any gaps.
7. Allow for the resin to completely cure (check curing times on data sheets).
8. Once the resin is thoroughly cured, sand it to the desired smoothness and apply an ordinary white primer for priming purposes.

Repair of Decayed Timber

Before commencing the repair, it is recommended that all paint be removed in order to carry out a thorough survey. This will make it easier to identify the areas of decay. To test for the presence of decay pierce the timber with a suitable sharp, pointed tool and feel for resistance. Finally, clearly mark the areas requiring attention.

Step-by-Step Guide:

1.Thoroughly remove all decayed timber using a mechanical router, and remove all existing paint from around the area to be repaired.
3. Using sand paper, thoroughly sand the area to be repaired to remove any loose fibres.
4. Verify that the moisture content in the wood is below 18% by using an electronic moisture meter. If the reading surpasses this, you may want to use a hot-air blower to carefully dry out the area, being careful not to scorch the timber.
5. Prepare and apply Rebuild Stabiliser liberally over the entire area, and leave for 20 minutes to allow penetration.
6. Mix up the Rebuild Resin 4 Hour and apply to the affected area. Apply small amounts first to ensure there are no air bubbles, then go in liberally to create your desired shape and finish.
7. Allow for the resin to completely cure (check curing times on the individual Resin data sheets).
8. Once fully cured, sand to required finish and prime using an ordinary white primer.

Splicing

Splicing in of new timber may be needed due to decay or vandalism. Make sure you have splice prepared in advance before beginning the Rebuild repair.

Step-by-Step Guide:

1.Thoroughly remove all decayed timber using a mechanical router and remove all existing paint from around the area to be repaired.
3. Using sand paper thoroughly sand the area to be repaired to remove any loose fibres.
4. Verify that the moisture content in the wood is below 18% by using an electronic moisture meter. If the reading surpasses this, you may want to use a hot-air blower to carefully dry out the area, being careful not to scorch the timber.
5. Apply Rebuild Stabiliser liberally over the entire area, and leave for 20 minutes to allow penetration.
6. Prepare the splice (a point to note is that the splice does not have to be an exact shape or size, in fact the splice being installed should be at least 4mm smaller than the area to be repaired.
7. Mix up your chosen Rebuild Resin (depending on repair size) and apply a bed of resin over the entire area to be repaired to a minimum depth of 4mm.
8. Force the splice into place and ensure that all gaps are filled. Remove any excess resin.
9. Allow for the resin to completely cure (check curing times on the individual Resin data sheets).
10. Finally, sand down and prime.

Sill Replacement

Make sure you have the new timber sill available before starting your Rebuild Repair.

Step-by-Step Guide:
1.Completely remove the rotten sill.
2. Remove any decayed timber at the back of the sill using a mechanical router / chisel.
3. Remove all existing paint from around the area to be repaired.
4. Using sand paper, thoroughly sand the area to be repaired to remove any loose fibres.
5. Verify that the moisture content in the wood is below 18% by using an electronic moisture meter. If the reading surpasses this, you may want to use a hot-air blower to carefully dry out the area, being careful not to scorch the timber.
6. Apply Rebuild Stabiliser liberally over the entire area to be repaired, and to all the contact edges of the new sill. Leave for 20 minutes to allow for penetration.
7. Apply Rebuild Resin 1 Hour over the entire area to be repaired and over the contact edges of the new sill.
8. Work the new sill into place, taking care to ensure that all gaps are filled.
9. Counter sink any fixings and apply Rebuild Resin to the fixing holes.
10. Allow to cure fully (check data sheets), and then sand and prime.

Renewal of timber glazing beads

Step-by-Step Guide:

1. Remove existing timber beads/linseed oil putty.
2. Sand rebate in order to remove dirt and loose fibres.
3. Ensure glass is clean.
4. Verify that the moisture content in the wood is below 18% by using an electronic moisture meter. If the reading surpasses this, you may want to use a hot-air blower to carefully dry out the area, being careful not to scorch the timber.
5. Apply one coat of white primer to glazing rebate and leave to dry thoroughly.
6. Apply Rebuild Multi-Purpose Glazing Sealant directly into the glazing rebate.
7. Work Rebuild Glazing Sealant into shape using a putty knife, or work timber beads into place using the Rebuild Glazing Sealant as the bedding agent.
8. Remove any excess Rebuild Glazing Sealant (if necessary excess Glazing Sealant may be easily removed from the glass once cured).
9. Leave to cure (approximately 24 hours) then finish as required using an alkyd based paint.

Sealing of end grain and unprotected sides

Step-by-Step Guide:

1.Check to ensure that there is no rot present in the end grain or unprotected sides. If rot is present remove using a mechanical router / chisel.
2. Verify that the moisture content in the wood is below 18% by using an electronic moisture meter. If the reading surpasses this, you may want to use a hot-air blower to carefully dry out the area, being careful not to scorch the timber.
3. Apply Rebuild Stabiliser liberally over the entire area, and leave for 20 minutes to allow penetration.
4. Mix the required quantity of Rebuild Resin 4 Hour and apply to the affected area, taking care to work it in well in order to fill any gaps. Use the edge of an application knife / scraper in order to achieve a smooth finish.
5. Seal all remaining exposed end grain by brush applying Rebuild Stabiliser over the entire area.
6. Leave Rebuild Stabiliser for approximately 12 hours, in order to fully cure before finishing.

Repairing weatherboards

Step-by-Step Guide:

1.Where the existing weatherboard is in good condition open the joint between the weather board and the door using a mechanical router to a minimum width of 4mm and a minimum depth of 10mm.
2. Using sand paper thoroughly sand inside and around the joint to remove any loose fibres.
3. Apply Rebuild Multi-Purpose Glazing Sealant directly into the open joint.
4. Work the Rebuild Glazing Sealant into shape using a putty knife / scraper.
5. Remove any excess sealant.
6. Leave to cure (approximately 24 hours) then finish as required using an alkyd based paint.

Applying new weatherboards

Step-by-Step Guide:

1. Apply Rebuild Multi-Purpose Glazing Sealant liberally to the back of the new weatherboard, then locate on door, taking care to ensure that there is no visible gap between the new weatherboard and the door.
2. Counter sink the fixings, and apply Rebuild Resin 4 Hour to the fixings holes.
3. Leave to fully cure (check resin data sheet). then sand and prime where necessary.

Sealing internal horizontal glazing lines

Step-by-Step Guide:

1. Remove the existing putty.
2. Using sand paper, sand the rebate to remove any loose fibres & dirt.
3. Verify that the moisture content in the wood is below 18% by using an electronic moisture meter. If the reading surpasses this, you may want to use a hot-air blower to carefully dry out the area, being careful not to scorch the timber.
4. Ensure glass is clean.
5. Apply one coat of white primer to glazing rebate and leave to dry thoroughly.
6. Apply Rebuild Multi-Purpose Glazing Sealant directly into the glazing rebate.
7. Work the Rebuild Glazing Sealant into shape using a putty knife / scraper.
8. Remove any excess Rebuild Glazing Sealant (excess sealant may easily be removed from the glass once cured).
9. Leave to cure (approximately 24 hours) then finish as required using an alkyd based paint.