



WORK METHODS FOR THE RENOVAID WOOD RENOVATION SYSTEM

Durable maintenance of exterior joinery of all sorts with the RENOVAID system can be subdivided into the following parts:

V.(Voorkomen) = Prevention of Wood decay.

H. (Herstel) = Repair of Wood decay.

General observations

Wood decay is fought from two angles.

1. Preventing wood decay occurring, the V numbers.
2. Repair of wood decay once discovered, the H numbers.

The following general conditions need to be observed:

- The wood moisture content level may not exceed 18%. The risk of repair at higher wood moisture content levels is that wood decay due to fungi may continue under the repair.
- The paint system surrounding the area to be repaired should be removed in total. Although epoxy will adhere to paint systems, this adhesion is always inferior to the adhesion to sound wood. On top of that, there is the problem of the weakest link. If the paint system de-adheres, so will automatically the epoxy on top of the paint system.
- In case of wood repair, all decayed wood must be removed into the sound wood. The fungus will already have partly penetrated into the sound wood. In this case, removing too much wood is far better than removing too little.
- The ambient temperatures as mentioned on the tubes and the product sheets must be observed. Repair at extremely high temperatures, in particular when working in the sun, may cause small cracks due to tension. At too low temperatures, the product cannot be sanded and painted properly the next day.
- Repairs during rain or fog should be avoided if the repair area is not protected against weather influences. There is a risk of a wood moisture content level of over 18%. Also, the surface of the epoxy may turn white.
- It is to be advised, to sand the repair before applying Renofast or a paint system to maximize adhesion.

Hidden moisture ingress

If moisture ingress to the substrate remains possible, sooner or later (renewed) wood decay will occur. Open seams and joints are obvious places where moisture ingress may occur. But often the source is not always immediately obvious.

Notorious are:

- Moisture ingress from indoors
- Faulty glazing systems
- Moisture ingress from the cavity of brickwork. In particular in case of perimeter sealing preventing ventilation.

V1. Sealing of open joints in window frames.



Products:

Renofix Groen (primer) /
Renoflex Groen (Repair paste)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

or

Renofix Oranje (primer) /
Renoflex Oranje (Repair paste)
Temperature range: 2-25° C
(Curing: 4 hours at 20° C)

1. Remove the paint system around the damaged area.
2. Check the wood moisture content level. If over 18%, let the wood dry.
3. Open the joints with a cutter, saw or scraper in such a way that an opening of at least 1 cm deep and 1 cm wide is created.
4. Apply a thin layer of **Renofix** primer in the joint and let it penetrate for at least 20 minutes and up to a maximum of 2 hours.
5. Insert **Renoflex** repair paste into the opening. Make sure to bring the product in good contact with the wood. Avoid air pockets.
6. After curing, sand. Preferably mechanically.
7. Any irregularities can be treated with **Renofast**. Sand lightly after curing (½ hour).
8. Finish with a paint system of your choice.

V2. Sealing of seams and open joints in windows.



Products:

Renofix Groen (primer) /
Renoflex Groen (Repair paste)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

or

Renofix Oranje (primer) /
Renoflex Oranje (Repair paste)
Temperature range: 2-25° C
(Curing: 4 hours at 20° C)

1. Remove the paint system around the damaged area.
2. Check the wood moisture content level. If over 18%, let the wood dry.
3. Open the joints with a cutter, saw or scraper in such a way that an opening of at least 1 cm deep and 1 cm wide is created.
4. Apply a thin layer of **Renofix** primer in the joint and let it penetrate for at least 20 minutes and up to a maximum of 2 hours.
5. Insert **Renoflex** repair paste into the opening. Make sure to bring the product in good contact with the wood. Avoid air pockets.
6. After curing, sand. Preferably mechanically.
7. Any irregularities can be treated with **Renofast**. Sand lightly after curing (½ hour).
8. Finish with a paint system of your choice.

Remark:

Windows and doors that are opened and closed regularly, are subject to great forces (slamming of doors). Therefore, it is advised to repair the inside as well.

V3. Sealing of open joints near stone or concrete.



Products:

Renofix Groen (primer) /
Renoflex Groen (Repair paste)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

or

Renofix Oranje (primer) /
Renoflex Oranje (Repair paste)
Temperature range: 2-25° C
(Curing: 4 hours at 20° C)

1. Remove the paint system around the damaged area.
2. Check the wood moisture content level. If over 18%, let the wood dry.
3. Open the joints with a cutter, saw or scraper in such a way that an opening of at least 1 cm deep and 1 cm wide is created.
4. Apply a thin layer of **Renofix** primer in the joint and let it penetrate for at least 20 minutes and up to a maximum of 2 hours. Do **NOT** apply any Renofix on stone or concrete.
5. Cover stone or concrete with tape to avoid contamination.
6. Insert **Renoflex** repair paste into the opening. Make sure to bring the product in good contact with the wood and stone/concrete. Avoid air pockets.
9. After curing, sand. Preferably mechanically.
10. Any irregularities can be treated with **Renofast**. Sand lightly after curing (½ hour).
11. Finish with a paint system of your choice.

V4. Sealing of cracks in wood.



Products:

Renofix Groen (primer) /
Renoflex Groen (Repair paste)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

or

Renofix Oranje (primer) /
Renoflex Oranje (Repair paste)
Temperature range: 2-25° C
(Curing: 4 hours at 20° C)

Cracks (max 0.5 cm wide and 05 cm deep)

1. Remove the paint system around the damaged area.
2. Check the wood moisture content level. If over 18%, let the wood dry.
3. Drill a hole on both ends of the crack to avoid further cracking of the wood.
4. Clean the crack **thoroughly** with a cutter to create an opening of min.1 cm wide and 1 cm deep. Remove dust and loose fibers.
5. Apply a thin layer of **Renofix** primer in the crack and let it penetrate for at least 20 minutes and up to a maximum of 2 hours.
6. First apply a thin layer of Renoflex repair paste and than fill entirely. Avoid air pockets.
7. After curing, sand. Preferably mechanically.

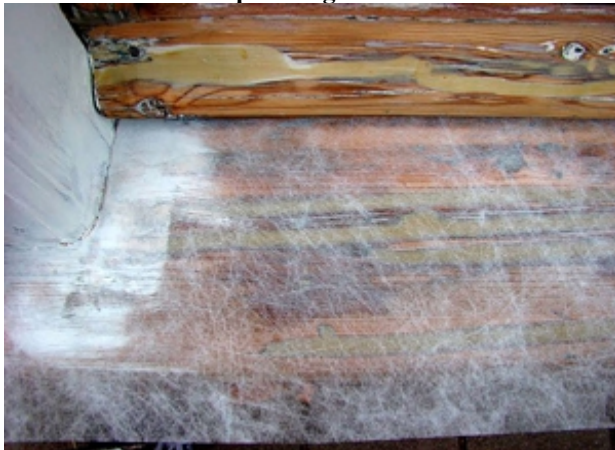
Remark: Damage (often cracks) in wood with finger joints and/or laminated wood



Repair larger cracks.



Apply a layer of Renofix Oranje



Press the cloth in the still wet Renofix Oranje



Apply a second layer of Renofix Oranje (wet in wet)

- With this type of substrate it is very hard to achieve a durable repair and no warranty can be given. Technically the best option is to apply a ventilating wooden ledge. (See below). If that is not possible, one can consider the use of polyester cloth to protect the sill.
- Repair cracks (max 0.5 cm wide and 0.5 cm deep) as described under V4.
- Round sharp edges of the sill to a radius of at least 5 mm.
- Apply a layer of **Renofix Oranje** on the horizontal part of the affected sill.
- Press the cloth in the still wet layer of **Renofix Oranje**. It is very important to remove any air pockets with a spatula or roller.
- Immediately apply a new layer of **Renofix Oranje** over the cloth (wet in wet).
- Sand the **Renofix Oranje** after curing. Make sure not to damage the fibres of the cloth.
- Finish with a paint system of your choice.

Placing wooden ledges

Risk: in particular sills with finger joints and/or laminated parts are very prone to damage and require extra protection to prevent decay.

1. Remove all existing beads or glazing profiles.
2. Clean the sills and check the substrate for wood decay and open joints. If necessary, do repair work.
3. Check the wood moisture content level. If over 18%, let the wood dry.
4. Sand the sills. Apply two layers of a base coat to all bare wood spots, followed by a top coat ensuring sufficient technical protection.
5. Place the ledge. (use ledges and beads made of FSC hard wood, preferably meranti (volume mass > 500 kg/m³)). Use wood without any finger joints.
6. The ledge should extend at least 5 mm over the edge of the sill thus creating a ventilation space of at least 5 mm.
7. When fitting the ledge, make sure a seam of at least 4 mm is created on each side of the ledge.
8. Seal this space when sealing the glazing system.
9. After shortening the profiles, sand the ends well and apply two layers of base coat.
10. For optimal protection, use **Renobond** glue and end grain sealer in stead of the base coat.
11. The joint with the vertical beads should be cut with a saw or sharp chisel in a 45° angle.
12. Sand the bottom edges of the vertical beads well and apply two layers of base coat or, for an optimal sealing, a layer of **Renobond** glue and end grain sealer).
13. The joint between the vertical bead and the top of the ledge should have a tolerance of no more than 4 mm. Place the ledge on black blocks with a thickness of 5 mm.
14. Place the blocks with a compound near the screws lengthwise in the rebate to ensure that the ledge cannot tilt. Or place the blocks under the ledge with the same screws that fasten the ledge to the sill.
15. Fasten the ledge with stainless steel bulb screws to avoid damage to the wood. Always drill a guiding hole before placing the screws. Use screws every 20 cm and not further then 6 cm from the corners.
16. Preferably use an elastic sealant for the sealing of the glazing system. E.g. **Renotop**. The sealant strip should be at least 5 mm wide and 6 mm deep.
17. Make sure all surfaces are clean (dust, dirt and grease free) and dry when applying the sealant. Do not use in temperatures below 0° C.
18. Apply the sealant in a water shedding angle of at least 15°.
19. Finish with a paint system of your choice.



Option:

Form the ledge in such a way that it follows the sill (contra mold) and, if possible, extend over the joint, thus protecting vulnerable joint against the weather.

V5. Repair of natural defects in wood (e.g. wood knots)



Products:

Renofix Groen (primer) /
Renoflex Groen (Repair paste)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

or

Renofix Oranje (primer) /
Renoflex Oranje (Repair paste)
Temperature range: 2-25° C
(Curing: 4 hours at 20° C)

1. Remove the paint system around the damaged area.
2. Check the wood moisture content level. If over 18%, let the wood dry.
3. Open the wood knot or similar defect with a cutter in an oval shape to a min. depth of 1 cm.
4. Apply a thin layer of **Renofix** primer in the repair and let it penetrate for at least 20 minutes and up to a maximum of 2 hours.
5. Insert **Renoflex** repair paste into the opening. Make sure to bring the product in good contact with the wood. Avoid air pockets.
6. After curing, sand. Preferably mechanically.
7. Any irregularities can be treated with **Renofast**. Sand lightly after curing (½ hour).
8. Finish with a paint system of your choice.

V6 Sealing of porous substrates (End grain wood, etc.)



Products:

Renofix Groen (primer) /
Renobond (Glue / End grain sealer)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

1. Remove the paint system around the affected area.
2. Remove weathered wood.
3. Check the wood moisture content level. If over 18%, let the wood dry.
4. Apply a thin layer of **Renofix Groen** primer on the end grain wood and let it penetrate for at least 20 minutes and up to a maximum of 2 hours.
5. Apply a thin layer of **Renobond** glue and end grain sealer with a brush or spatula on the end grain wood.
6. After curing, sand. Preferably mechanically.
7. Finish with a paint system of your choice.

V7 Rounding of sharp and weathered edges.



Products:

Round edge cutter
Sanding paper

1. Round sharp edges of styles and sills to a radius of at least 5 mm with a special cutter or sanding paper.
2. Also remove weathered wood.
3. Finish with a paint system of your choice.

V8 Check and, if required, correct the perimeter tolerance .



Products:

Renobond (Glue / End grain sealer)

1. Check the perimeter tolerance and correct where required by shaving.
Hanging side: 2 mm
Top side: 2 mm
Closing side: 3 mm
Under side: 5 mm
2. For an optimal watertight sealing apply a thin layer of **Renobond** glue and end grain sealer on the shaved areas as described in V6.
3. Sand after curing of the **Renobond**.
4. Finish with a paint system of your choice.

V9: Repair of damaged wood



Products:

Renofix Groen (primer) /
Renoflex Groen (Repair paste)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

or

Renofix Oranje (primer) /
Renoflex Oranje (Repair paste)
Temperature range: 2-25° C
(Curing: 4 hours at 20° C)

Wear on styles and sills, cable holes, nail holes, irregularities, etc.

1. Remove the paint system around the damaged area.
2. Check for hidden water ingress points such as cable holes, nails, screws, etc.
3. Check the wood moisture content level. If over 18%, let the wood dry.
4. At larger damaged area's apply a thin layer of **Renofix** primer in the repair and let it penetrate for at least 20 minutes and up to a maximum of 2 hours.
5. Insert **Renoflex** repair paste into the opening. Make sure to bring the product in good contact with the wood. Avoid air pockets.
6. After curing, sand. Preferably mechanically.
7. Any irregularities can be treated with **Renofast**. Sand lightly after curing (½ hour).
8. Repair smaller damaged area's such as nail holes with Renofast. Do NOT use Renofix. Sand lightly after curing.
9. Finish with a paint system of your choice.

V10: Repair of open joints indoors



Products:

Renofast (Fast curing repair paste)

1. Remove the paint system around the damaged area.
2. Check the wood moisture content level. If over 18%, let the wood dry.
3. Open the joint well with a straight cutter
4. Insert **Renofast** fast curing repair paste into the joint. Make sure to bring the product in good contact with the wood. Avoid air pockets.
5. After curing, sand. Preferably mechanically.
6. Finish with a paint system of your choice.

V11. Repair of aged, brittle, putty indoors and outdoors. In wood, steel and concrete.



Products:

Renoglas

1. Remove aged linseed oil putty or glazing compound by means of a chisel or sharp knife in such a way that the rebate will not be damaged.
2. Clean the rebate well and apply a base coat.
3. Remove any corrosion on steel or aluminum parts.
4. Check for high wood moisture content levels. If over 18%, let the wood dry.
5. Apply a thin layer of **Renoglas** into the rebate.
6. Fill the rebate with **Renoglas**.
7. Use a flexible spatula or special glazing rubber. Do NOT use water and/or soap.
8. Remove any compound rests from the glass.
9. Finish with a paint system your choice.

V12. Repair of inferior compound seams, indoors and outdoors



Products:

Renotop

1. Remove inferior compound fully with a sharp knife.
2. Clean the rebate well and apply a base coat if possible.
3. Remove any corrosion on steel or aluminum parts.
4. Check for high wood moisture content levels. If over 18%, let the wood dry.
5. Apply a thin layer of **Renotop** into the rebate.
6. Fill the rebate with **Renotop**.
7. Use a flexible wetted spatula or special wetted glazing rubber.
8. Remove any compound rests from the glass.
9. Finish with a paint system your choice.

V13 Opening of sealed frame-masonry joints



Products:

Renobond (Glue / End grain sealer)

Risk: Lack of ventilation prevents the evaporation of ingressed moisture (e.g. via leaking glazing systems indoors or the elevation construction). This will lead to wood decay.

1. Remove all putty between frame and masonry. E.g. with the use of a dilatation saw.
2. Sand the resulting seams and thoroughly remove loose wood fibres, paint, wood rests and dirt.
3. Apply **Renobond** glue and end grain sealer into the seams to prevent moisture ingress.
4. After curing of the **Renobond** (depending on temperature 16 to 24 hours), sand.
5. Finish with a paint system of your choice.

Joint window sill - brick work

1. Use a Renovaid dilatation saw to remove the bottom part of the wooden sill to ensure sufficient ventilation.
2. Remove thoroughly all fibres, wood rests and dirt. Use tape to protect the bricks against contamination with Renobond.
3. Apply **Renobond** glue and end grain sealer into the seam to prevent moisture ingress.
4. After curing of the **Renobond** (depending on temperature 16 to 24 hours), sand.
5. Finish with a paint system of your choice.



H1. Repair of decayed wood using paste repairs (< 300 ml).



Products:

Renofix Groen (primer) /
Renoflex Groen (Repair paste)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

or

Renofix Oranje (primer) /
Renoflex Oranje (Repair paste)
Temperature range: 2-25° C
(Curing: 4 hours at 20° C)

1. Remove all paint a couple of cm around the area to be repaired prior to cutting or sawing.
2. Remove all decayed wood (including 5 mm of the surrounding sound wood) with a chisel, saw or cutter.
3. If a chisel is used, remove broken or flattened wood fibres with a cutter.
4. Sand bare wood.
5. Check the wood moisture content level. If over 18%, let the wood dry.
6. Apply a thin layer of **Renofix** primer on the surfaces to be repaired. Let it penetrate for at least 20 minutes and up to a maximum of 2 hours.
7. Insert **Renoflex** repair paste into the opening. Make sure to bring the product in good contact with the wood. Avoid air pockets.
8. After curing, sand. Preferably mechanically.
9. Any irregularities can be treated with **Renofast**. Sand lightly after curing (½ hour).
10. Finish with a paint system of your choice.

H2. Repair of decayed wood using a laminating system (> 300 ml in front of the glass line).



Products:

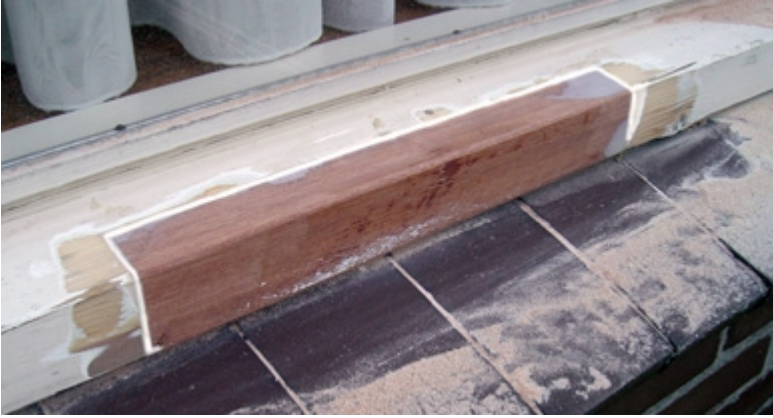
Renofix Groen (primer) /
Renoflex Groen (Repair paste)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

or

Renofix Oranje (primer) /
Renoflex Oranje (Repair paste)
Temperature range: 2-25° C
(Curing: 4 hours at 20° C)

1. Remove all paint a couple of cm around the area to be repaired prior to cutting or sawing.
2. Remove all decayed wood (including 5 mm of the surrounding sound wood) with a chisel, saw or cutter.
3. If a chisel is used, remove broken or flattened wood fibres with a cutter.
4. Sand bare wood.
5. Prepare a new wooden part. Preferably of the same type of wood. Observe a seam of ½ to 1 cm for gluing.
6. Apply a thin layer of **Renofix** primer on the contact area's. Including the new wooden part. Let it penetrate for at least 20 minutes and up to a maximum of 2 hours.
7. Apply a thin layer of **Renoflex** repair paste onto the contact area's. Make sure to bring the product in good contact with the wood. Avoid air pockets.
8. Apply a thick layer of **Renoflex** and press the new wooden part into the layer.
9. Make sure the seam is fully filled.
10. Remove excess material with a spatula.
11. After curing, sand. Preferably mechanically.
12. Any irregularities can be treated with **Renofast**. Sand lightly after curing (½ hour).
13. Finish with a paint system of your choice.

H3. Repair of decayed wood using a laminating system (> 300 ml in front of the glass line).



Products:

Renofast (Fast curing repair paste)

A new wooden part is glued in with Renofast. Use this method when great speed is required.

1. Remove all paint a couple of cm around the area to be repaired prior to cutting or sawing.
2. Remove all decayed wood (including 5 mm of the surrounding sound wood) with a chisel, saw or cutter.
3. If a chisel is used, remove broken or flattened wood fibres with a cutter.
4. Sand bare wood.
5. Prepare a new wooden part. Preferably of the same type of wood. Observe a seam of 5 mm to max 7 mm for gluing.
6. Apply a thin layer of **Renofast** fast curing repair paste onto the contact area's. Make sure to bring the product in good contact with the wood. Avoid air pockets.
11. Apply a thick layer of **Renofast** (max 7 mm) and press the new wooden part into the layer.
12. Make sure the seam is fully filled.
13. Remove excess material with a spatula.
14. After curing, sand. Preferably mechanically.
15. Any irregularities can be treated with **Renofast**. Sand lightly after curing (½ hour).
16. Finish with a paint system of your choice.

Remark: In view of the fast curing of the **Renofast**, it is imperative to prepare the repair well and work fast and accurately.

H4. Repair of decayed wood using splicing (> 300 ml behind the glass line).



Products:

Renofix Groen (primer) /
Renoflex Groen (Repair paste)
Temperature range: 10-30° C,
(Curing: 16 hours at 20° C)

or

Renofix Oranje (primer) /
Renoflex Oranje (Repair paste)
Temperature range: 2-25° C
(Curing: 4 hours at 20° C)

A new sill or style is glued in with Renoflex.

1. Remove all paint a couple of cm around the area to be repaired prior to cutting or sawing.
2. Remove all decayed wood (including 5 mm of the surrounding sound wood) with a chisel, saw or cutter.
3. Sand bare wood.
4. Prepare a new wooden part. Preferably of the same type of wood. In case of load bearing constructions, observe an angle of 90°.
5. Observe a seam of ½ to 1 cm for gluing.
6. Apply a thin layer of **Renofix** primer on the contact area's. Including the new wooden part. Let it penetrate for at least 20 minutes and up to a maximum of 2 hours.
7. Apply a thin layer of **Renoflex** repair paste onto the contact area's. Make sure to bring the product in good contact with the wood. Avoid air pockets.
8. Apply a thick layer of **Renoflex** in such a way that the seam will be fully filled when the new sill of style is placed
9. Remove excess material with a spatula.
10. After curing, sand. Preferably mechanically.
11. Any irregularities can be treated with **Renofast**.
12. Sand lightly after curing (½ hour).
13. Finish with a paint system of your choice.

H5. Repair of decayed wood using splicing (> 300 ml behind the glass line).



Products:

Renofast (Fast curing repair paste)

A new sill or style is glued in with Renofast. Use this method when great speed is required.

1. Remove all paint a couple of cm around the area to be repaired prior to cutting or sawing.
2. Remove all decayed wood (including 5 mm of the surrounding sound wood) with a chisel, saw or cutter.
3. If a chisel is used, remove broken or flattened wood fibres with a cutter.
4. Sand bare wood.
5. Prepare a new sill or style. Preferably of the same type of wood. In case of load bearing constructions, observe an angle of 90°.
6. Observe a seam of 5 mm to max 7 mm for gluing.
7. Apply a thin layer of **Renofast** repair paste onto the contact area's. Make sure to bring the product in good contact with the wood. Avoid air pockets.
8. Apply a thick layer of **Renofast** (max 7 mm) in such a way that the seam will be fully filled when the new sill or style is placed
9. Remove excess material with a spatula.
10. After curing, sand. Preferably mechanically.
11. Any irregularities can be treated with **Renofast**. Sand lightly after curing (½ hour).
12. Finish with a paint system of your choice.

*Remark: In view of the fast curing of the **Renofast**, it is imperative to prepare the repair well and work fast and accurately.*

Disclaimer, printing and typographical errors reserved. The Renovaid methods are written for a standard frame size of “67 x 114”. In case of more massive frames, observe a larger seam.