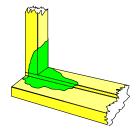
# WINDOW CARE REPAIR SYSTEM

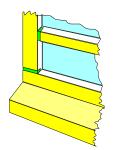
Prior to carrying out repairs, remove paint system from areas of decay extending to 10mm beyond repair.

## **Resin-Only Repairs**

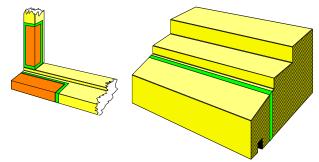


Typical example area identified in sketch: Remove decayed timber using Window Care Profi with round cutter, back to sound timber, check for excess moisture, form up as necessary with perspex slips, apply Dry Fix Wood Stabilizer and after interval apply Dry Flex RP Repair Compound to shape of timber section. When fully cured remove formers and sand sections to shape ready for decoration (See repair Method No 2).

#### **Conservation Joints**



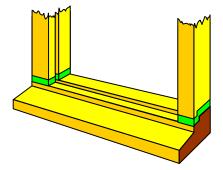
Typical example area identified in sketch: To all lower joints where a horizontal member meets a vertical member on main frames, opening and fixed lights, cills and the like, form a conservation joint by opening up the joint to a width of 4mm and a depth of 10mm, checking for decay, removing dust and dirt, apply Dry Fix Wood Stabilizer and after interval apply Dry Flex RP Repair Compound. When fully cured sand to shape ready for decoration (See Repair Method No 1).



## Face Splice of Timbers including Fronts of Cills

Typical example areas identified in sketches: Remove decayed timber to depth indicated below and renew face section of timber with new section to match existing (unprimed on meeting surfaces). Apply Dry Fix Wood Stabilizer to all meeting surfaces and after

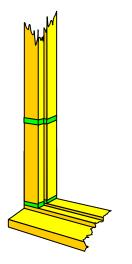
interval apply Dry Flex RP Repair Compound ensuring a gap of 4mm all round. When fully cured sand to shape ready for decoration (See Repair Method No 3)



#### **Renew Cill Timbers Complete**

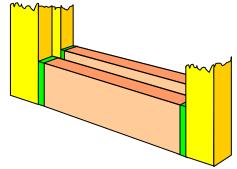
Typical example area identified in sketch: Renew decayed cill complete in hardwood/ softwood (unprimed on meeting surfaces) to match existing section and joint to existing frame and mullions with Dry Fix and Dry Flex RP ensuring a minimum 4mm joint of Dry Flex. When fully cured sand to shape ready for decoration. Assume 2 joints per 900mm (See repair Method No 4).

## **Renew Full Section of Frame or Mullion**



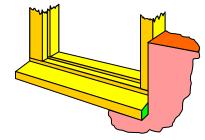
Typical example area identified in sketch: Renew decayed section complete in softwood (unprimed on meeting surfaces) to match existing section and joint to existing section at both ends with Dry Fix and Dry Flex RP ensuring a minimum 4mm joint of Dry Flex. When fully cured sand to shape ready for decoration (See Repair Method No 4).

# Renew Complete Bottom Rail To Sash or Door



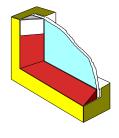
Typical example area identified in sketch: Renew decayed section complete in softwood (unprimed on meeting surfaces) to match existing section and joint to existing section at both ends with Dry Fix and Dry Flex RP ensuring a minimum 4mm joint of Dry Flex. When fully cured sand to shape ready for decoration (See Repair Method No 4).

#### **End Grain Treatment To Exposed Ends Of Cills**



Typical example area identified in sketch: New And Existing Timbers Clean back existing timbers with Profi and to new and existing timbers apply Dry Fix and surface fill with Dry Flex RP. Sand to shape after curing.

## **Face Putties**



Typical example area identified in sketch: Remove all lower and vertical putties 50mm from horizontal and replace with linseed oil glazing compound (See Repair Method No 6.1 & 7).

## **Back Putties or Internal Putty Line**

Remove all lower and vertical back putties 300mm from horizontal using the Profi Assist Kit and replace with linseed oil glazing compound.

#### **General Repair Items**

## **Overhauling Sliding Sash Windows**

Remove sliding sashes, ease as necessary, renew cords, check and lubricate pulleys. Fit new parting bead where damaged. Check action of catches and security fittings where fitted, lubricate and ease as necessary. Leave all parts of sliding sash window in good working order.

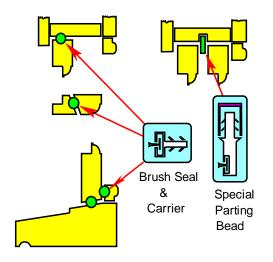
#### **Overhauling Casement Windows**

Remove and rehang as necessary including removal of excess paint from frame and sash. Ease, refit sash, adjust catches and security devices where fitted, lubricate and leave in good working order.

# Draught Proofing Sliding Sash Windows Method Statement

Remove staff beads all round, release weights, remove inner sash, remove parting beads and remove outer sash. Ease sashes for width if necessary, ease for length to accommodate brush seals and at meeting rail also to accommodate brush seal. Rout out sashes and fit brush carriers, refit outer sash and fit new (removable) brush seal parting beads, adjust weights, renew cords, renew chains and other fittings as necessary. Refit inner sash as above and fit new staff bead incorporating brush seals and position to give ease of movement to sash. On completion, test for correct working, both sashes should slide easily, non-moving at any level and casement fasteners should locate and release with ease. Any security fittings should also locate without difficulty. Check for excess movement and for any rattles.

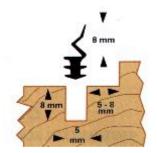
# **Typical arrangement**



# Draught Proofing Opening Casements and Doors (where required)

Rout out frame or sash as appropriate and fit cranked blade wiper seal with minimal resistance to opening or closing. This seal is weather energised and tightens as wind pressure increases. This operation to be carried out on all opening windows and doors but excluding the sliding sash windows for which see preceding item.

## **Typical arrangement**



## **Prime Bare Timbers**

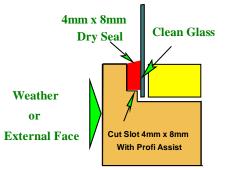
On completion of Window Care Repairs prime all bare timbers in accordance with painting specification.

## The Following Are Typical Recommendations For Repairing and Conserving Timber Joinery

## **Removal of Paint Finish**

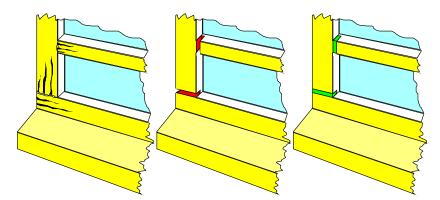
Remove paint from the areas to be treated or repaired. In this instance we would suggest the bottom rails of the sashes and the cills to at least 10mm beyond any repair. Use a warm air stripper and avoid charring of timbers as this will affect adhesion of repair compound. Note: You may consider that more paint removal will be necessary to effect easing of sashes and for a quality finish.

## **Back Putties or Internal Glazing Line**



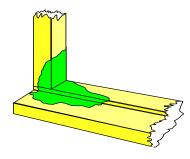
Using the PROFI ASSIST cut out the back putties to a depth of 4 - 8mm on the bottom and up to 300mm on the vertical glazing line and apply linseed oil glazing compound in accordance with our recommendations. This will effectively seal the glazing line against moisture penetration and prevent moisture reaching the frame joints and rebates.

## **Open Joints**



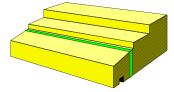
To the bottom joint lines of mullions sashes, and frames to cills, ends of transoms and sound old splices, using the PROFI with straight cutter, cut open the joint to a width of 4mm and a depth of 10mm, check for moisture content using the WOOD CONDITION METER, apply DRY FIX, allow for penetration and fill with DRY FLEX RP. After curing, sand off and apply paint finish. This will effectively seal the joints and prevent further moisture penetration and movement and, if done properly, the hair line cracking normally a feature at these joints will not re-appear. See repair method 1.

#### **Areas of Decay**



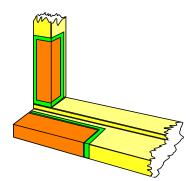
Remove decayed areas back to sound timber using the PROFI with round cutter. Check for moisture content using the WOOD CONDITION METER, apply DRY FIX, allow for penetration and fill with DRY FLEX RP. After curing, sand to shape and apply paint finish. This will give a permanent repair to the areas affected by wood decay, it will be stronger than the original timber and is flexible enough to allow movement without loss of strength or adhesion. **See repair method 2.** 

#### **Excessively Damaged Cills**



Where cill sections are excessively damaged by decay the fastest and most economical method of repair is to replace the section affected for the full width of the window. This involves cutting away the front section of the cill back to the first rebate line, checking moisture content of old timber and bonding on a new section (having sealed the end grain) using DRY FIX and DRY FLEX RP ensuring that a cushion of repair compound of at least 4mm is present, allow to cure and sand to shape as before and apply paint finishes. This will quickly achieve an economical repair and the joint between the old and the new timber will remain bonded and the whole will act as a complete new cill. **See repair method 3.** 

#### **Renewal of Timbers**



Splicing in of new timbers is easily achieved using the methods described above remembering to provide the 4mm cushion of DRY FLEX RP all round the repair. **See repair method 3.** 

#### Treatment of Exposed End Grain (Ends of Cills)

Using the PROFI with round cutter cut back the end grain to sound timber. Check for moisture content using the WOOD CONDITION METER, apply DRY FIX, allow for penetration and surface fill with DRY FLEX RP. After curing, sand to shape and apply paint finish. This will give an effective seal to the end grain and prevent the uptake of moisture at this point. **Procedure is similar to method 2.** 

#### **Conservation Of Wooden Joints On Existing Joinery**

- 1. Remove the existing finish around the joint. Ensure that up to a minimum of 10mm from the vicinity of the joint, the timber is sanded back to bare shiny wood.
- 2. Cut open the existing joint to a width of 4mm and a depth of 10mm with the Window Care Profi, using a Straight Cutter.
- 3. Sand the "Open Joint" using a medium grade abrasive paper and remove the dust/dirt completely.
- 4. If the moisture content of the wood is above 18%, blow dry the joint using a Hot Air Blower at a temperature of 60-80°C.

Use the Window Care Wood Condition Meter CSI to check the moisture content.

5. Mix the required quantity of Window Care Dry Fix Wood Stabilizer in the correct ratio.

Apply the Dry Fix well into the joint using a small brush. Wipe off the excess Dry Fix.

Leave for 30 minutes before sealing the "Open Joint" with Dry Flex RP.

Work the Dry Flex RP into the seam and seal the joint.

Allow the Dry Flex RP to dry for at least 24 hours at 20°C.

The drying time may take 2-3 days at lower temperatures.

Use the Window Care Scraper to remove 'excess' cured Dry Flex RP if necessary.

Sand the sealed joint to a smooth, even finish.

Remove dust/dirt.

Apply the decorative/protective paint finish.

- Wooden joints affected by excessive insitu wood decay Continue to cut out the decayed wood until sound timber is reached.
- Check that the moisture content of the timber is below 18% before applying the Dry Fix/Dry Flex RP.
- Check with the Contract Administrator, if, Window Care DRY PIN is to be used.
- Where applicable, DRY PIN should be applied as illustrated in the "Systems" Brochure.

## Repair Of Decayed Wood With Window Care Dry Flex RP

- 1. Window Care Dry Flex RP allows insitu repair of timber affected by wood decay. It is advisable to take into account the strength of the construction after repair. For example, in situations where the timber is "load bearing", it may be appropriate to use timber splice in accordance with Repair Method Number 5.
- 2. Remove all decayed wood with the Window Care Profi using the Round Cutter. Continue to remove the decayed wood until sound timber is reached.

The sound timber can be recognised by the high-pitched sound of the Window Care Profi, it is generally of harder structure and uniform colour.

- 3. Lightly sand the surface of the timber using a medium grade abrasive paper. Check that the moisture content is below 18% using the Window Care Wood Condition Meter CS1. Apply hot air using a Hot Air Blower at 60-80°C. Avoid burning the timber fibres, this ensures good adhesion of Dry Flex RP.
- 4. Ensure that the adjoining paint system is removed up to I0mm from the vicinity of the repair.
- 5. Mix the required quantity of Dry Fix Wood Stabilizer in the correct ratio.

Apply the Dry Fix well into the surface us'ing a small brush. Wipe off any excess Dry Fix.

Leave for 25-30 minutes before applying the Dry Flex RP.

- 6. Mix the Dry Flex RP thoroughly until a homogeneous "butter-like" mass is achieved.
- 7. Apply the Dry Flex RP using plastic modelling knives available from Window Care Systems Limited. For more complex repairs use perspex plates for "shuttering."
- 8. Apply hot air to the surface of Dry Flex RP for a few minutes. This is optional and is only recommended at times when wet weather can be anticipated or application at low temperatures.
- 9. Ensure that the Dry Flex RP is completely dry (normally 24 hours are required at 20°C) and longer periods when applied under low temperature conditions.
- 10. Use the Window Care Scraper to remove 'excess: cured Dry Flex RP.
- 11. Sand the repaired areas lightly to achieve an even, smooth surface before painting with an alkyd or water-based paint system.
  - Check with the Specifier, if, Window Care DRY PIN is to be used.
  - Where applicable, DRY PIN should be applied as illustrated in the "Systems" Brochure.

## Repair Of Decayed Wood By "Splicing In Timber"

Cut out the decayed wood at an angle of 75° until the sound timber is reached- The timber may be cut using a saw, chisel or Window Care Profi.

The strength of the construction after repair should be taken into account. In situations where the timber is "load bearing", the use of steel reinforced rods may be necessary.

For normal repair by "splicing in timber", follow the procedure below:

- 1. Prepare the new timber splice (moisture content <18%) in such a way that there is a seam/gap of at least 4mm between the contact areas, use the Window Care Wood Condition Meter CS1 to measure the moisture content.
- 2. If the contact areas of the existing wood have a moisture content of over 18%, blow dry the affected area using a hot air blower at a temperature of 60-80°C. Strip the existing paint finish up to at least 10mm from the joint on existing timber.

Ensure that the new timber is left clean and un-primed during the fixing process.

3. Apply Window Care Dry Fix Wood Stabilizer to the end grain of the existing timber and the new timber splice using a brush. Work the Dry Fix well into the surface. Leave for about 25.30 minutes.

Apply Dry Flex RP on all areas of contact (already treated with Dry Fix).

Use a 4mm "space" at the joint and secure the new timber splice in position using a perspex fixing plate. Fill the "joint" with Dry Flex RP and smooth the surface using a plastic knife.

Avoid any surface irregularities.

4. Allow at least 24 hours drying at 20°C before any surface sanding and subsequent painting.

At lower temperatures allow a longer period of time for Dry Flex RP to dry.

The fixing plate can be removed when the Dry Flex RP has dried completely.

Use the Window Care Scraper to remove 'excess' cured Dry Flex RP.

Sand the Dry Flex RP lightly. Remove dust/dirt before painting with an alkyd or water-based' paint system.

- Check with the Contract Administrator, if, Window Care Dry Pin is to be used.
- Where applicable, DRY PIN should be applied as illustrated in the "Systems" Brochure.

#### **Replacement of Entire Styles/Sills Affected by Wood Decay**

- 1. Remove the decayed style/sill. Check if the contact areas of the existing wood are affected by wood decay. Remove all the decayed wood using a Window Care Profi until sound timber is reached.
- 2. If the contact areas of the existing wood have a moisture content above 18%, blow dry the surface using a hot air blower at a temperature of 60-80°C, use the Window Care Wood Condition Meter CS1 to measure the moisture content.
- 3. Remove the existing paint to at least 10mm from the joint.
- 4. Cut the new style/sill to a size to allow a 4mm seam/gap at each contact point. Apply a coat of decorative/protective finish all around before fixing. A dry thickness of 40 microns of the protective finish is recommended.

Ensure that the meeting surfaces of the existing timber and the new timber is left clean and unprimed during the fixing process. The painting of the end-grain is not necessary in view of the water sealing capacity of Dry Flex RP.

- 5. Wet the contact areas of the existing and the new wood using the Window Care Dry Fix Wood Stabilizer with a brush. Work the Dry Fix well into the surface. Leave for about 25 30 minutes. Apply Dry Flex RP on all areas of contact (already treated with Dry Fix).
- 6. Insert the new style/sill using a 4mm "spacer" at the joint and secure the new timber position using a Perspex fixing plate.

Fill the "joint" with Dry Flex RP and smooth the surface using a plastic knife. Avoid any surface irregularities.

7. Allow at least 24 hours drying time at 20°C before any surface sanding and subsequent painting. At lower temperatures, allow a longer period of time for Dry Flex to dry.

The fixing plates can be removed when the Dry Flex RP has dried completely. Sand the Dry Flex lightly. Remove dust/dirt before painting with an alkyd or water based paint system.

Use the Window Care Scraper to remove 'excess' cured Dry Flex RP.

- Check with the Specifier, if, Window Care DRY PIN should be used.
- Where applicable, DRY PIN should be applied as illustrated in the "Systems" Brochure.

#### **Rounding of sharp and Weathered Edges**

- 1. Inspect the sides of the styles and sills for sharp and weathered edges.
- 2. Round the horizontal and vertical edges using the Window Care Assist.
- 3. Adjust and set the cutter on the Window Care Assist to achieve a smooth and a round edge. A test application is advisable.
- 4. Use the slant side of the Base Plate of the Window Care Assist if the style or sill is of the water shedding type and the flat side if the style or sill is flat.
- 5. After rounding the edges there should not be any grey spots in the wood. If there are, repeat the procedure.
- 6. If during the rounding of sharp edges, there are raised wood fibres or holes, this is generally due to the cutting action against the direction of wood grain. Working in the opposite direction will reduce/prevent the problem.
- 7. If the moisture content of the wood is high, blow dry the timber using a hot air blower before rounding the edges, use the Window Care Wood condition Meter CS1 to measure the moisture content.
- 8. After rounding the edges, sand lightly with a fine abrasive paper. Remove dust/dirt before finishing.

## Renewal Of Glazing Putty/Mastic On Existing Wooden Windows And Doors

Before commencing work, all timber repairs should be carried out with the appropriate Window Care Repair Method.

The existing putty/mastic should be removed with care to prevent breakage of glass.

## 1. Face Glazed/Putty Glazed Windows And Doors.

a) Partial Renewal Of Existing Putty/Mastic

Completely remove the existing putty/mastic affected by the breakdown on the horizontal glazing line and take it 50mm to the vertical. Lightly sand the rebate using a medium/fine grade abrasive paper. Remove dust. Degrease the affected area using a cellulose thinner applied with a lint free cloth.

Allow the surface to dry completely. Apply linseed oil glazing compound available from Window Care Systems Ltd.

Cut the nozzle of the linseed oil glazing compound tube at a 450 angle. Apply the linseed oil glazing compound with a sealant gun. Use a dry Seal Applicator to achieve a smooth finish. Remove any excess linseed oil glazing compound.

b) For Complete Renewal Of Putty/Mastic

Remove the existing putty/mastic completely and follow the procedure outlined in a) above.

#### 2. Bead Glazed Windows And Doors

Bead glazed windows and doors affected by' the breakdown of existing putty/mastic.

Rake out the perished putty/mastic to a depth of 4-8mm on the horizontal glazing line and take it

50mm to the vertical. Remove all dust/dirt and degrease the affected area with a cellulose thinner.

Allow the degreased area adequate time to dry completely.

Apply the Dry Seal with a sealant application gun. Work the linseed oil glazing compound well into the joint. Use a Dry Seal Applicator to achieve a smooth finish.

## 3. Renewal Of Perimeter Sealant

Remove the existing perimeter sealant. Lightly sand the affected area using a medium/fine grade abrasive paper. Remove dust. Degrease the surface using a cellulose thinner. allow the surface to

dry completely. -

Apply the linseed oil glazing compound with a sealant application gun. Use a spatula to achieve a smooth finish. In all cases. allow at least 48 hours before painting.

Ensure that the moisture content of the timber is below 18% before applying the linseed oil glazing compound. Use the Window Care Wood Condition Meter CS1 to measure the moisture content.

## **Puttied Windows**

Remove the existing putty carefully (without breaking the glass) from the horizontal glazing line and up 50mm to the vertical. Remove the putty from the rebate completely. Sand the rebate with a medium grade abrasive paper. Remove dust/dirt and degrease the surface by wiping it with a lint free cloth using white spirits or preferably a cellulose thinner. Allow the surface to dry completely before applying the linseed oil glazing compound

• Where possible it is beneficial if the rebate can be primed using a solvent based fast-drying primer prior to glazing with linseed oil glazing compound.