



Caring for Your Windows + Doors

An Owner's Guide

All Innotech uPVC products
Version 2.0

beautiful living : for generations

At Innotech we take pride in our technology, quality and craftsmanship. Every day we seek to build products that will stand the test of time and provide years of service, protecting homes and providing their occupants with a comfortable and healthy environment.

We present you with this informative guide to help you get the most from your investment. With a little care and routine maintenance, your Innotech products will be sure to perform and look their best for many years.

We suggest you take a few minutes to read this guide so you feel comfortable operating, cleaning, and maintaining your new windows and doors.

In addition to the information in this guide you can find additional resources at www.innotech-windows.com/clientcare on topics such as operating modes, alarm contact installation, hardware adjustments, and so on.

At any time, if you require assistance or have questions, you may contact our head office toll free at 1 866 854 1122.

REST ASSURED,

We are as committed to your satisfaction as we are to the quality of our products; not just for today, but for years to come.

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1 [Post-Installation care]

• Post-installation requirements

— Materials and tools required / Page 04 of 16

1. Post-installation requirements

1.1. Materials and tools required

Table 1. Required tools and materials for care and maintenance.

Lubricants: PTFE dry-film lubricant, lanolin-based corrosion inhibitor 	Recommended:  WD-40 Specialist Dry Lube PTFE Spray: Use WD-40 Specialist PTFE spray for smooth operation and corrosion protection where a dry, non-oily lubricant is required on tracks, rollers, and hardware.  Fluid Film (Lanolin-Based Lubricant): Use a lanolin-based lubricant to protect window hardware from corrosion while providing long-lasting, moisture-resistant lubrication.  Würth (PTFE Dry Lubricant): Transparent, non-soiling dry film lubricant that reduces friction, prevents wear, resists moisture and chemicals, and provides clean, long-lasting lubrication without attracting dust or dirt.
Glass cleaner 	A standard, non-abrasive glass cleaner to effectively remove dirt and residue while protecting glass and surrounding finishes.
Isopropyl alcohol (rubbing alcohol) 	Isopropyl alcohol for effective removal of grease, fingerprints, and stubborn residues from glass surfaces without damaging finishes.
Microfibre glass cloth 	A soft, clean, lint-free microfibre cloth to apply and remove cleaning solution without scratching or leaving residue on glass surfaces.
Drill bit and screws 	Drill bits and 1/2" screws suitable for securely fastening accessories to frames without damaging the material or internal steel reinforcement.

[Post-Installation care]

1. Post-installation requirements

— Removing protective tapes and films / Page 05 of 16

WARNING!

Risk of Static Discharge. Removal of protective film can cause sparks of static electricity and can ignite combustible liquids used nearby.

1.2. Removing protective tapes and films

Vinyl window and door frames may have protective plastic TAPE applied to interior and exterior surfaces to protect them during manufacturing and handling. Glass surfaces may have protective FILM applied to interior and exterior surfaces. Protective tapes and films may not be present on some products for specific technical reasons.

- Protective TAPE on EXTERIOR vinyl surfaces must be removed as soon as products are installed.
- Protective FILM on EXTERIOR glass surfaces must be removed within twelve months of installation.
- Any remaining protective TAPES and FILMS must be removed from all surfaces before final cleaning.

Protective TAPE left on exterior vinyl surfaces can begin to fuse to the product surface from warm temperatures and exposure to the sun. Failure to remove the protective plastic TAPE at the time the frames are installed may cause the TAPE to bond to the frame and may permanently damage the frame finish.

Protective FILM must be removed very carefully in the presence of flammable and explosive chemicals and gases. Removal of protective film can cause sparks of static electricity and can ignite combustible liquids used nearby.

To reduce potential for creating sparks do one or more of the following:

- Mist the surface of the film with a light water spray.
- Remove film slowly.
- Touch film to glass surface often while you are removing it.

2. [Maintenance and care]

2. Maintenance and planning

— Cleaning and maintenance by other parties / Page 06 of 16

2. Maintenance and planning

Windows and doors are subjected to many kinds of dirt, debris and other contaminants over time. Ongoing care and maintenance at regular intervals helps to ensure that they attain their intended service life, maintain optimum performance, and are not subject to premature wear.

Failure to properly maintain the windows and doors may result in reduced air and water tightness, in premature wear of the operating components, and may void provisions of the warranty.

If you encounter cleaning, maintenance or operation problems not covered by this document, contact your Innotech dealer or Client Care at Innotech Windows + Doors.

2.1. Cleaning and maintenance by other parties

If ongoing care and maintenance are performed by parties other than the homeowner, these instructions must be provided to the responsible parties. It is not possible to describe every condition that maintenance and cleaning staff will encounter. If those responsible for maintenance and cleaning encounter problems not covered by this document, they must contact your Innotech dealer or Client Care at Innotech Windows + Doors.

2.2. Maintenance record keeping

Innotech recommends that you maintain and clean Innotech windows and doors at regular intervals, and that you maintain a record of actions performed in the event you have a warranty claim.

2.3. Maintenance intervals - typical properties

Typical maintenance includes the following items.

Table 2. Typical maintenance schedule.

Task	Frequency	Comment
Inspect window and door sills and clean if necessary. Ensure gaskets are clean and drainage holes are not obstructed.	12 months	Record
Lubricate hardware.	12 months	Record
Clean vision glass.	As needed	—
Clean interior frame surfaces.	As needed	—
Clean exterior of frames.	As needed	—

[Maintenance and care]

2. Maintenance and planning

— Maintenance intervals - coastal properties / Page 07 of 16

TIP

If you notice operational problems or damage to your windows or doors, or missing gaskets or other components that have been removed, contact your Innotech representative. A simple service call may solve the problem and prevent additional damage from affecting the performance of your windows and doors.

2.4. Maintenance intervals - coastal properties

Coastal properties require additional maintenance as they are subject to salt deposits and wind driven sand. Typical maintenance concerns are inspecting for sand and dirt accumulation at window and door sills when sashes are open; inspecting and removing sand and salt deposits from operating hardware and exposed metal surfaces; and applying additional corrosion protection to exposed metal surfaces after cleaning. Perform maintenance at indicated frequency or more often if sand is accumulating in sills when sashes are opened.

Metal surfaces may develop whitish deposits from prolonged exposure to airborne and waterborne salt. This condition is not considered failure of the corrosion protection.

Table 3. Coastal maintenance schedule - properties exposed to salt and/or wind-driven sand.

Task	Frequency	Comment
Inspect window and door sills and clean if necessary. Ensure gaskets are clean and drainage holes are not obstructed.	2 months, more often if necessary	Record
Inspect exterior hinges and metal components, rinse off salt deposits and dry.	2 months, more often if necessary	Record
Inspect sash hardware and exposed metal surfaces. Wipe surfaces with a damp cloth to remove sand and salt deposits.	6 months	Record
Apply corrosion protection to operating hardware on sash edges, to lock keepers on frames, and to screen clips.	6 months	Record
Lubricate hardware.	6 months	Record
Clean exterior vision glass.	As needed	—
Clean exterior of frames.	As needed	—
Clean interior frame surfaces.	As needed	—
Clean interior vision glass.	As needed	—

3. [Maintenance and care]

3. Cleaning and hardware care

— Cleaning window and door frames / Page 08 of 16

3. Cleaning and hardware care

3.1. Cleaning window and door frames

WARNING!

Metal scrapers, chemical solvents and acidic masonry cleaning solutions will permanently damage window and door finishes. Damage from inappropriate cleaning methods is not covered under warranty.

TIP

Do not use a dry cloth to wipe the frame. This will charge the frame with static electricity which will attract dust and dirt to the frame.

WARNING!

Use of high-pressure water jets to clean windows and doors can permanently damage finishes and lead to water intrusion problems.

CAUTION

Do not wash frame or glass surfaces when they are hot. Glass can crack from sudden temperature changes and the rapid drying of wash water on dark, hot frames can leave deposits.

WARNING!

Do not use metal scrapers to remove deposits from glass. Use of scrapers to clean the glass surface may lead to permanent scratches and glass breakage.

Open each window and door sash. Inspect the interior surfaces of the frame and remove sand, dirt and other debris. Make sure the weep holes in the bottom of the frame are not blocked and are free of debris.

Remove surface deposits carefully to avoid damaging the finish. Use a soft brush or a damp cloth to gently remove abrasive materials. Avoid scraping, vigorous rubbing, or scratching the surface of the window or door. Never use abrasive methods, sand paper, or steel wool.

If necessary, wash frames with mild soap or neutral pH diluted detergent and water. Use soft cloths or sponges that are free of abrasive material. Do not use cleaners containing pumice or abrasive compounds, or any kind of chemical solvent. Solvents can permanently damage the frame finish. Do not use vinegar or acidic solutions as they may affect the hardware finish.

Inspect the flexible gaskets. Use a damp cloth to wipe off dirt or other deposits. The gaskets should be soft and flexible and free of surface deposits.

Note. If the gaskets appear to be removed, dislocated or damaged, or if the sashes do not open or close properly, contact your Innotech dealer or representative.

Water under high-pressure, such as a high-pressure hose or pressure washer, should not be used to wash or rinse windows and doors. High-pressure water jets can result in scratches and premature wearing of exterior finishes and drive water into the wall assembly.

Construction Residue Warning: If construction-related materials or stubborn residues (such as paint, plaster, cement, or sealants) are accidentally left on the units, do not attempt aggressive cleaning or scraping, as this may damage the glass, frames, or hardware. Contact Client Care for approved cleaning methods and proper guidance. Scratches or dents can only be repaired by qualified service personnel.

3.2. Cleaning glass

Clean glass with mild soap or neutral pH diluted detergent and water, conventional window cleaning solution, or isopropyl alcohol. Retail glass cleaning products such as Windex® are acceptable. **Do not use vinegar or organic solvents such as acetone or paint thinner as they may damage the frame and metal finishes.**

Apply the cleaning solution by spray or using a soft, clean, grit-free cloth. Use light to moderate pressure, using a circular motion, when wiping the cleaning solution on the glass surface. Rinse immediately with clean water, removing excess water with a squeegee or lint-free cloth. After renovations, remove surface paint, plaster, cement, or other deposits carefully to avoid damaging the surface finish. Avoid scraping, vigorous rubbing, or scratching the glass.

[Maintenance and care]

3. Cleaning and hardware care

— Maintaining hardware / Page 09 of 16

3.3. Maintaining hardware

Inspect the metal operating hardware mechanism on all four sides of each operating sash. Use a soft brush or a damp cloth to wipe away dust and construction debris. Lubricate the mechanism as shown in the diagram. Refer to [Section 1.1 on page 04] for the proper lubricant specifications.

[Figure 1 on page 09] shows typical hardware lubrication points.

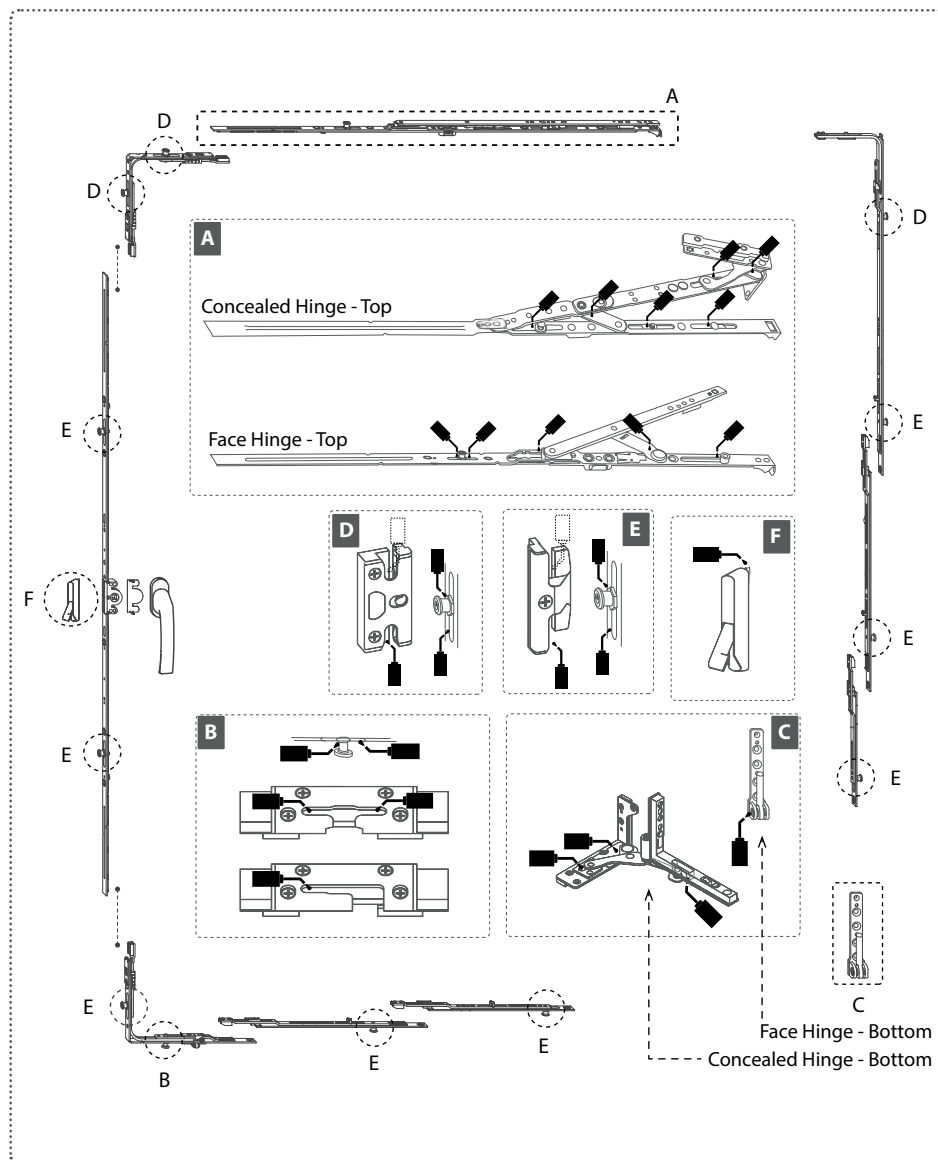


Figure 1. Typical hardware lubrication points.

4. [Condensation and environmental performance]

4. Ventilation and condensation

— Indoor condensation / Page 10 of 16

TIP

To achieve a low air flow “trickle ventilation” effect, turn the handle between the Tilt and Turn positions at an angle of approximately 45° and pull towards you slightly.

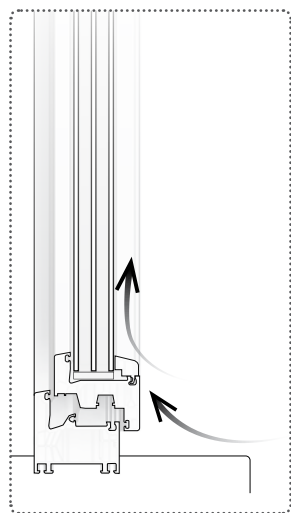


Figure 2. Warm air rises, leaving the bottom of the window colder, where moisture forms and condensation appears.

4. Ventilation and condensation

Innotech windows and doors are highly energy efficient, ENERGY STAR® qualified, and resistant to condensation. However, if your home is not equipped with a fresh air ventilation system, you may need to open your windows regularly to ensure adequate fresh air and to prevent condensation from occurring on the indoor surfaces of the glass and frames.

You will find ventilation is most effective and comfortable with windows opened in the Tilt position.

Condensation occurs when warm, moist air comes into contact with a cold surface and the moisture in the air reverts to its liquid form. Condensation can occur on both indoor and outdoor surfaces.

While energy efficient windows are significantly more resistant to condensation, it can still occur if the indoor humidity is sufficiently high. The table below shows the relative improvement in centre of glass condensation resistance between dual and triple pane energy efficient windows.

Table 4. Humidity levels that can cause indoor glass condensation¹.

Outdoor temperature		Single pane clear glass	Dual pane clear glass	Dual pane low E argon	Triple pane dual low E
0 °C	32 °F	35%	60%	77%	86%
-10 °C	14 °F	19%	47%	67%	81%
-20 °C	-4 °F	12%	38%	58%	75%
-30 °C	-22 °F	6%	30%	48%	68%
-40 °C	-40 °F	4%	22%	38%	63%

Indoor condensation typically occurs within one or two inches (~25-50 mm) of the bottom of the glass. This is because warm air rises, making the bottom of the window the coldest part, and because air flowing past the window cannot reach the bottom edge of the glass where it steps back from the face of the window frame. [Figure 2 on page 10]

4.1. Indoor condensation

Occasional instances of indoor condensation are normal. Persistent, long term condensation is a sign of excessive humidity and lack of ventilation and can affect health

1. The data is interpolated from graphs published by the Efficient Windows Collaborative at efficientwindows.org and represents the minimum relative humidity that would cause condensation on the centre of glass under controlled simulation conditions. Because of variations in air flow and edge of glass conditions it does not predict the exact point at which condensation will occur in any given home.

[Condensation and environmental performance]

4. Ventilation and condensation

— Indoor condensation on replacement windows / Page 11 of 16

FACT

Newly constructed homes have higher than normal humidity levels for the first year or two as construction materials such as concrete, wood and gypsum board release moisture acquired during construction. These higher-than normal humidity levels stabilize after one or two heating seasons.

by encouraging the growth of mould and lead to deterioration of building finishes.

Indoor humidity stems from several common household sources. Warm air holds significantly more moisture than cold air, so various indoor activities can quickly raise humidity levels. Cooking without proper ventilation, unvented clothes dryers, and humidifiers directly release water vapour into the air. Indoor plants are another source as they release large amounts of water vapour. Additionally, aquariums, and interior water features contribute to ongoing indoor moisture.

Persistent condensation on indoor surfaces of Innotech windows or doors is a sign of excessive humidity in the home, insufficient ventilation, and/or a lack of air flow which can occur when windows have deep sills or are covered with curtains or blinds.

If indoor condensation persists, we suggest you contact a certified heating, ventilation, and air conditioning (HVAC) contractor who may be able to suggest solutions to improve your home's ventilation.

To prevent condensation from occurring on windows, interior window accessories such as curtains, blinds and valances must not inhibit or impede the movement of air at the surface of the window. Any restriction of air movement will reduce the condensation resistance and thus increase the possibility of "sweating" on the window. Ensuring adequate room ventilation and conditioned air flow over window and door surfaces can reduce the potential for condensation.

4.2. Indoor condensation on replacement windows

Reducing or eliminating indoor condensation is one reason people replace old and drafty windows and doors. After window and door replacement the home is warmer and more airtight, however condensation can still occur.

Properly installed replacement windows and doors are much more airtight than the products they replace. While this increases comfort and saves energy, the reduced air leakage may result in inadequate ventilation. This can contribute to higher humidity levels and occasional condensation.

4.3. Outdoor condensation

The moisture that sometimes forms on the outdoor side of high performance windows and doors is dew, the same kind of condensation that you can see many mornings on your car windshield or on lawn furniture. Dew occurs naturally when the temperature becomes cold enough for moisture in the air to condense on cold surfaces. Outdoor condensation is most likely to occur in the spring and fall when warmer days are followed by cold, clear nights. Depending on where you live, it may only occur a few times a year.

Why does condensation appear on the outside of better windows and doors?

Windows and doors that are more effective at keeping heat indoors are colder on the outside. Why? Because less heat escapes through them to warm the outer surfaces.

[Condensation and environmental performance]

4. Ventilation and condensation

— Outdoor condensation / Page 12 of 16

The cold outer surfaces indicate that the windows and doors are doing a good job of keeping the heat indoors, where it belongs.

Why does exterior condensation form on some surfaces and not on others?

Not all exterior surfaces are at the same temperature. Exterior surface temperature can be affected by many things such as sunlight warming some areas more than others, heat given off by nearby warmer materials or laundry vents, localized air currents, and so on.

Can exterior condensation damage the windows or doors?

Innotech windows and doors are unaffected by exterior moisture. Exterior condensation has no effect on their performance or exterior finishes.

Should I be worried about exterior condensation?

Not at all. Dew is a natural phenomenon and doesn't mean the windows or doors are malfunctioning or leaking air. It is, in fact, a sign that your windows and doors are very energy efficient, doing a good job of keeping the heat indoors when it is cold outside.

5. [Product protection and modification]

Accessories and surface protection

— Attaching accessories / Page 13 of 16

WARNING!

Do not drill holes deeper than 1/2" (12.7 mm) into frames. Drilling deeper may lead to air or water tightness problems not covered by warranty.

TIP

To prevent screws from stripping frame material, predrill holes slightly smaller than screw size, use coarse threaded screws, and turn them by hand.

5. Accessories and surface protection

5.1. Attaching accessories

You can attach accessories such as retractable screens and window blinds to the interior and exterior surfaces of Innotech window and door frames provided the drill bit and screws do not penetrate the frames more than 1/2" (12.7 mm). [Figure 3 on page 13] shows some typical attachment conditions.

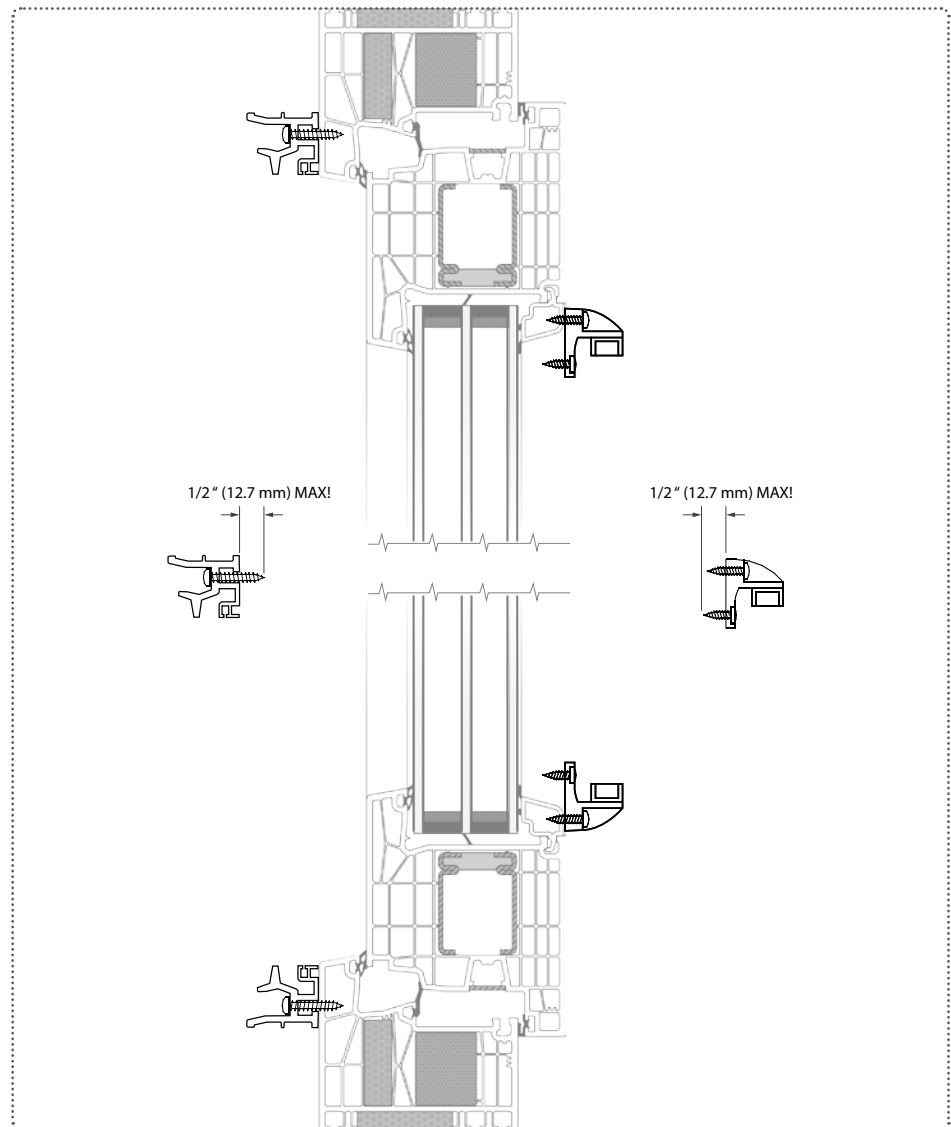


Figure 3. Typical attachment conditions.

[Product protection and modification]

5. Accessories and surface protection

— Protecting units during painting or spraying / Page 14 of 16

5.2. Protecting units during painting or spraying

Before painting or spray applying finishes near windows or doors, all units must be properly protected using masking film, plastic sheeting, and painter's tape. Covering the glass and uPVC frames prevents paint splatter, overspray, and chemical damage, and helps maintain the appearance and performance of the unit. Proper masking is considered an essential preparation step, as dried paint can be difficult to remove and may scratch glass or damage frame finishes if not protected in advance.

5.2.1. Cleaning paint or overspray

If paint, plaster, or other construction materials come into contact with the glass or frames, removal can be difficult and may cause damage if done improperly. Do not attempt aggressive cleaning, scraping, or use of solvents. Contact Client Care for proper guidance and approved cleaning methods to avoid permanent damage to the unit.

6. Reference

6.1. Definitions

The following terms are used in Innotech window and door publications. Many are common to all windows and doors.

Anchor. A device used to attach a window or door to the building structure.

Anchoring method. A method for structurally attaching a window or door to a building's structure. Innotech products may be installed using several anchoring methods. The most common are Strap Anchors and Sill Angles.

Brick moulding. A style of moulding commonly used between the edges of a window or door frame and the exterior finish.

Coupling or Coupling Mullion. A type of mullion that connects (couples) two separate frames.

Drywall return. A type of moulding applied to the interior edges of a window or door frame to receive gypsum board.

Flange or Mounting Flange. A fin extending from the edge of a window or door to help the installer position it in the wall. The flange is not to be used for anchoring an Innotech window or door to the building structure.

Frame. The structural member that surrounds the window or door and retains glass. A frame has a head (top member), sill (horizontal bottom member) and jambs (vertical members on the left and right edges). A frame may also have mullions, vertical members that span from the head to the sill; and transoms, horizontal members that span between mullions or jambs.

Grid/Muntin. A decorative bar that simulates the appearance of a muntin bar (narrow bar that separates panes of glass in single pane wooden windows). Innotech has three types of grids:

- In-glass grids. Aluminum bars in between the panes of glass in a sealed insulating glass unit.
- On-glass grids. PVC bars applied to both sides of the surface of the glass.
- Combined In-glass/On-glass grids. To simulate the appearance of true divided lites separated by muntins.

Head. The horizontal frame member at the top of the window or door.

Insulated panel. An opaque panel composed of rigid foam insulation bonded to thin sheets of aluminum or plastic. Panels are installed in window or door sashes in the same way as insulating glass.

Insulating glass, Insulating Glass Unit (IGU). A glass panel composed of two or more panes of glass assembled with spacers and sealants.

Jamb. Vertical members on the left and right edges of a window or door.

Lite or Light. An individual panel of glass in a window or door sash. A sash may have

[Technical information]

6. Reference

— Additional resources / Page 16 of 16

a single lite, or be subdivided into multiple lites.

Mullion. A vertical member that spans from the head to the sill.

Rail. One of the two horizontal members that bound a sash: the top rail and the bottom rail.

Sash. The operable element of a window or door that is opened and closed. A sash is composed of top and bottom rails (horizontal members), as well as stiles (vertical members). The hinge stile is the stile with hinges and the lock stile has the handle.

Sash bar. A vertical or horizontal framing member that divides the glass in a sash into separate pieces of glass. Like a muntin, a sash bar divides lites of glass. A sash bar is wider than a muntin because it protects the edges of the insulating glass units. A sash bar is like a mullion or a transom in a sash.

Sill. The horizontal frame member at the bottom of the window or door.

Sill angle. A galvanized steel angle used to attach the sill of a window or door to the building structure.

Stile. One of the two vertical members that support glass in a sash: the hinge stile and the lock stile.

Strap anchor. Galvanized steel attachment clips designed to engage the edge of Innotech window and door frames. Strap Anchors are clipped to the window or door frame before it is placed in the rough opening and are attached to the building structure with screws.

Transom. A horizontal member that spans between mullions or jambs.

Wind cap. A cap that shields the drainage holes at the sill of a window or door frame from wind and flowing rainwater. Also called a drainage cap.

6.2. Additional resources

To help ensure a long service life, additional product installation, alarm contact installation, cleaning and maintenance instructions are available for your windows and doors. How-to videos are also available. Visit innotech-windows.com/resources to download or view these resources, contact your local Innotech dealer, or contact our service department at 1 866 854 1122, Ext. 4.

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