SERVICE INSTRUCTION
Field Grille Application

These instructions apply to:
Pella® 350 Series 2011 - 04/2021

Tools Required:
- Miter Saw
- Measuring Tape
- Scissors
- Safety Glasses
- Small 1-1/2" wide rubber or wooden roller

Supplies Needed:
- Masking Tape
- Cable/Wire Ties
- Pencil
- Ammonia-Free Glass Cleaner
- Clean soft Lint-free Fabric or paper cloths
- Silane Coupling Agent: Gap- 11: 11 oz aerosol: Custom-Pak Products, Inc. N118W18981 Bunson Drive Germantown, WI 53022

Read all instruction steps thoroughly before beginning grille application.

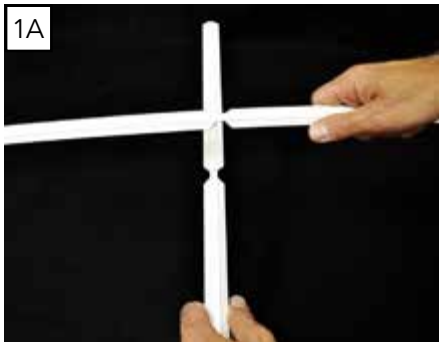
- Read and observe all safety instructions from the equipment, cleaners and pre-treatment solutions manufacturers.
- Wear appropriate personal protective equipment as recommended by the equipment and chemical manufacturers.

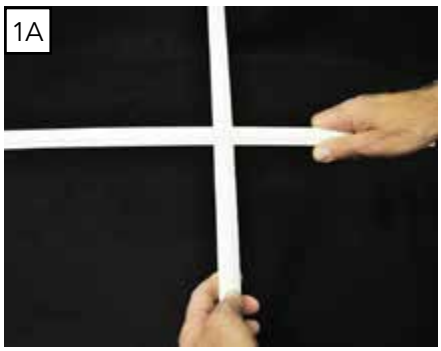
NOTE: Grilles may be installed in a horizontal position when the sash may be removed or in the vertical position when the unit remains installed. Preparation steps 1 and 2 are the same whether installing the grilles horizontally or vertically.

1 Grille Preparation:

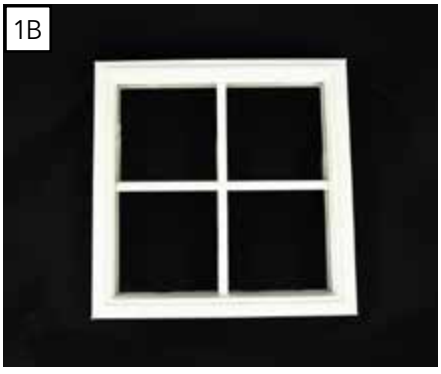
NOTE: Grilles are typically applied in a manner to provide for equally divided lites in the glass. In most cases, grilles are provided cut to correct length with the angle trimmed on each end of the bar(s) for application to the window glass for interior or exterior surface application. Grilles for shaped units are not provided cut to the correct length and must be held up to the window, aligned correctly, marked and cut to fit.

A. Assemble the grille, DO NOT remove the backing paper from the adhesive tape at this time.





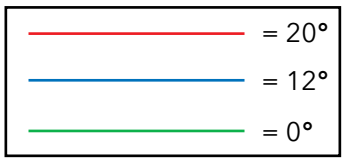
B. Test fit the grille in the window making sure it lays flat on the glass surface. The gap between the ends of the grilles and the window frame should be no more than 1/32", (which is about the thickness of a typical credit card, if a credit card fits in the gap, the gap is too large and grilles need to be re-ordered.)

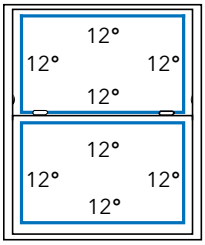


© 2021 Pella Corporation

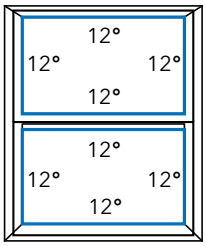
1 Grille Preparation (Continued):

C. If needed, trim the ends of the grilles to the correct angle for the window type to which the grille is being applied. Use a miter saw to cut the correct angle based on the information provided below.

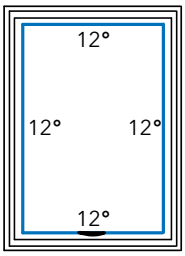




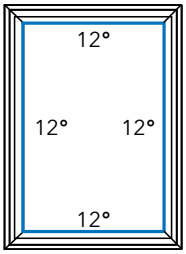
DH INTERIOR



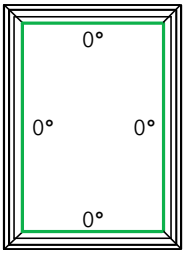
DH EXTERIOR



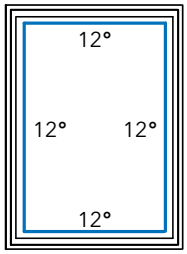
CM INTERIOR



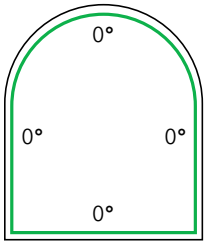
CM EXTERIOR



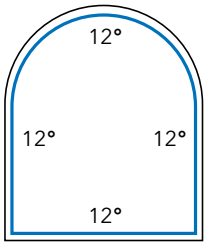
FX INTERIOR



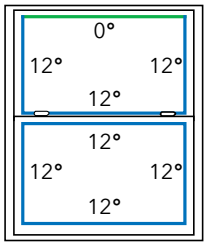
FX EXTERIOR



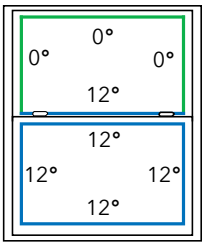
SHAPES INTERIOR



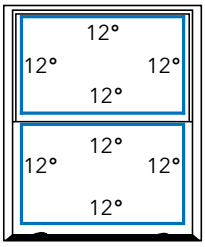
SHAPES EXTERIOR



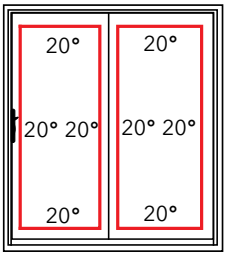
SH STD INTERIOR



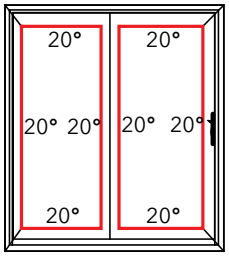
SH HP INTERIOR



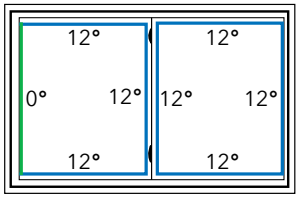
SH EXTERIOR



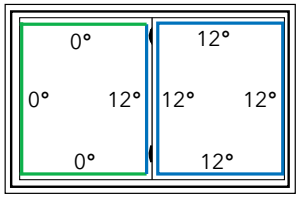
PD INTERIOR



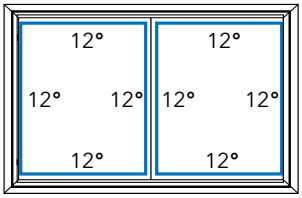
PD EXTERIOR



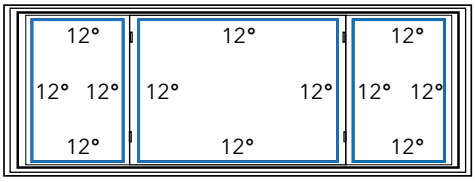
SW STD INTERIOR



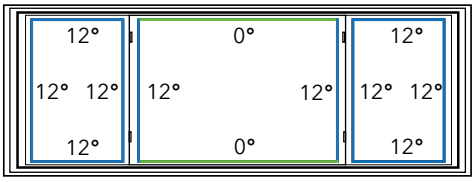
SW HP INTERIOR



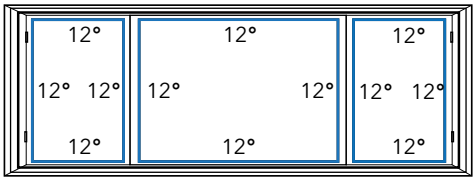
SW EXTERIOR



XOX STD INTERIOR



XOX HP INTERIOR



XOX EXTERIOR

D. Place a piece of masking tape on each edge of the frame at the approximate location the end of the grille will align with the frame. Measure to find the location to place the center of the bar against the frame and make a pencil mark on the tape.





E. Place a piece of tape on each end of the grille bar and place a mark on the tape at the center of the bar.



NOTE: When the grille is applied, align the marks on the grille with the marks on the frame.

2 Glass Cleaning and Preparation:

Cleaning:

The glass surface must be clean and free of all dirt, dust and contaminants before applying the grilles.

A. Apply a glass cleaner such as **ammonia-free** Windex® Glass & Surface cleaner or Sparkle® Glass Cleaner to the glass. **DO NOT** spray surrounding exterior finishes. Use a clean soft cloth to clean the glass surface. Be sure to wash the entire glass surface.

NOTE: Discard soiled cloths and use a new cloth for each sash to avoid cross contamination of glass surfaces.

Dry the glass surface after washing with a lint free paper or cloth towel.

Pre-treatment:

Application of a 'Silane Coupling Agent' to the glass surface is required to ensure proper adhesion of the tape to the glass prior to installing grilles.

B. Apply Gap-11 pre-treatment solution to the glass surface by spraying the solution following the grille pattern to be installed. Take care to not apply too much coupling agent to avoid run down off the glass onto any surrounding painted surfaces.

NOTE: Use the masking tape markers installed on the sash frame during the measurement as a location guide for applying the pre-treatment solution to the glass.

C. Dry the glass surface after applying pre-treatment using a lint-free paper or cloth towel. Allow the pre-treatment to completely evaporate from the glass surface before applying the grilles (3 minutes).



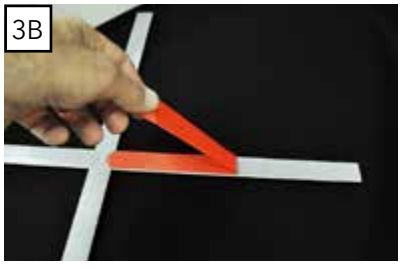
3 Horizontal Grille Application:

NOTE: For Vertical Grille application, go to step 4.

A. Lay some cable ties on the glass in the area where the grille will be adhered to the glass. The ties will keep the adhesive tape off the glass to allow for proper positioning of the grille.

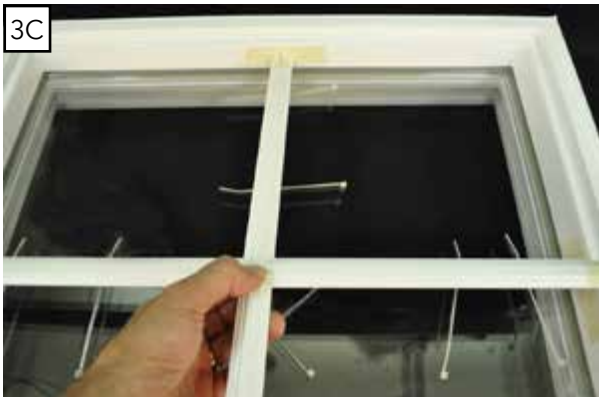


B. Lay the grille on a clean flat surface with the tape side up and carefully remove the release paper from the grille application tape.

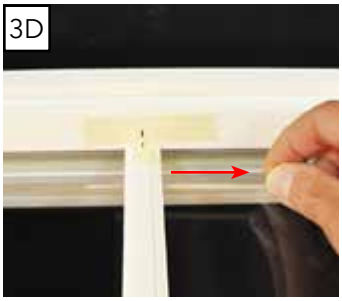


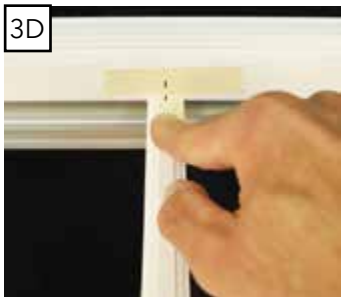
3 Horizontal Grille Application (Continued):

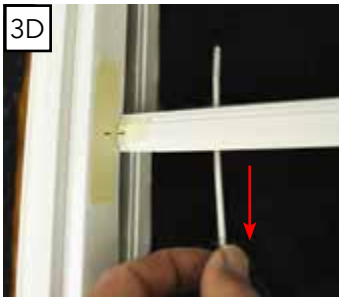
C. Position the grille with the adhesive tape side down over the glass and lay it on top of the cable ties to prevent it from touching the glass. Align the mark on the taped ends of the grille bars with the marks on the masking tape on the frame.



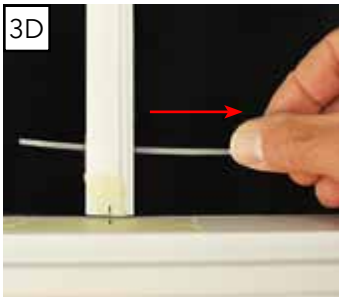
D. At each grille bar end, make sure the taped marks align and then pull out the cable tie and press the grille to the glass. Work around the glass until all the ends are pressed against the glass. Pull the cable ties out from the center and press the grille against the glass.

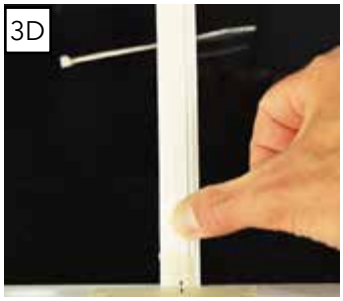




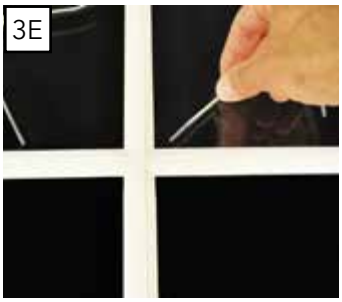








E. When all the grille bar ends are pressed against the glass; work towards the center of the grille and remove the center cable ties then press the center of the grille to the glass.





3 Horizontal Grille Application (Continued):

F. Firmly roll all surfaces of each grille bar using a 1-1/2" roller (or equivalent) to press grillle bar tape to the glass and ensure complete tape contact and adhesion.

NOTE: Firm application pressure develops better adhesive contact and helps improve bond strength. Typically, good surface contact can be attained by applying enough roller pressure to ensure the tape experiences approximately 14 psi pressure. Failure to ensure complete application tape contact may result in delamination of the grille from the glass surface.

G. Inspect each grille bar to ensure the application tape is fully contacting the glass, repeat rolling grill bars as needed.

H. Remove the masking tape markers from the grille bars and the frame.

Repeat steps 1-3 on the other side of the window as needed.





4 Vertical Grille Application:

A. Lay the grille on a clean flat surface with the tape side up and carefully remove the release paper from the grille application tape.



B. Gently arrange cable ties on the adhesive side of the grille as needed to allow for proper positioning of the grille on the glass. The number of cable ties will depend on the size of the grille bars.



C. Position the grille with the adhesive tape side toward the glass; align the mark on the taped ends of the grille bars with the marks on the masking tape on the frame. With the marks aligned, press one of the ends to the glass.





4 Vertical Grille Application (Continued):

D. At each grill bar end, make sure the taped marks align and then pull out the cable tie and press the grille to the glass. Work around the glass until all the ends are pressed against the glass.



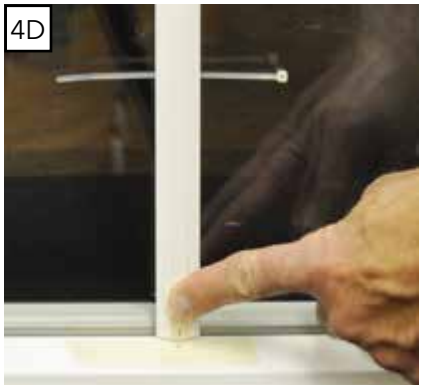










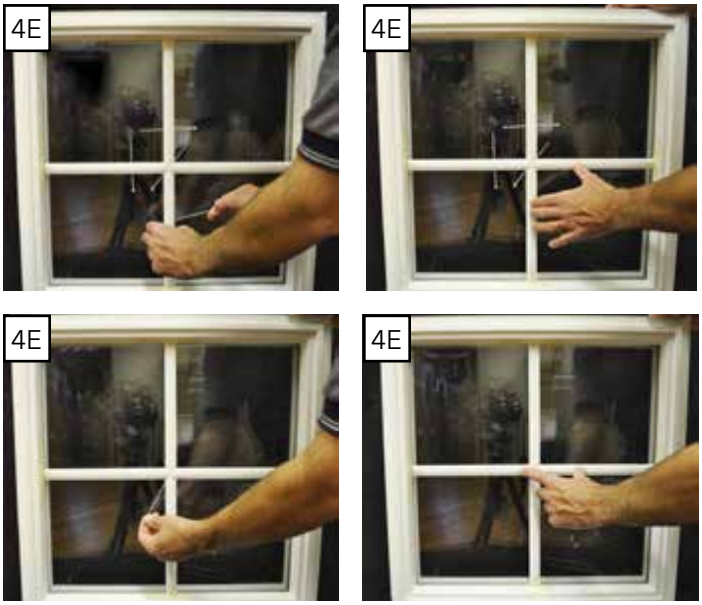






4 Vertical Grille Application (Continued):

E. Pull the cable ties out from the center of the grille and press the grille against the glass.



F. Firmly roll all surfaces of each grille bar using a 1-1/2" roller (or equivalent) to press grille bar tape to the glass and ensure complete tape contact and adhesion.



NOTE: Firm application pressure develops better adhesive contact and helps improve bond strength. Typically, good surface contact can be attained by applying enough roller pressure to ensure the tape experiences approximately 14 psi pressure. Failure to ensure complete application tape contact may result in delamination of the grille from the glass surface.

G. Inspect each grille bar to ensure the application tape is fully contacting the glass, repeat rolling grill bars as needed.

H. Remove the masking tape markers from the grille bars and the frame.

Repeat steps on the other side of the window as needed.