

Window and Door Manufacturing



The fenestration market manufactures windows and doors for the construction industry. Products include insulating glass and all types of windows – including picture or fixed windows, casement windows, single- or double-hung windows, slider windows, and skylights. The fenestration market also manufactures doors with windows – including patio doors, French doors, entry doors, garage doors, glass and garage doors.

Graco equipment is used to assemble of a large number of components for the above products including; Insulating Glass (or IG), sash, frame, and door panels.

Graco equipment transfers and/or meters, mixes, and dispenses sealant or adhesive from large containers to dispensing valves or equipment to the specified component for assembly.

Window glazing (back bedding)

Glazing or back-bedding is a common term used in the window and door industry to describe the process for setting glass into the light opening. Window glazing adheres glass onto the sash to create a weather-tight seal. Graco equipment involved in window glazing includes the [Graco Therm-O-Flow](#) for hot melt materials, [Graco Supply Systems](#) for dispensing materials at ambient temperatures, the [Graco 8900](#) two-component proportioner, and the [Graco Hydra-Mate](#) two-component proportioner.

Insulating glass

Insulating glass, commonly referred to as IG, comes in a variety of configurations with different thicknesses of air space, gas insertion and spacer systems. Typical IG consists of multiple panes of glass adhered to a spacer by a primary seal. A secondary seal is applied to the back of the spacer and the edge of the glass to provide an additional structural and weather-tight seal.



Desiccant application

Desiccant is used in the window manufacturing during the assembly of the insulating glass. The desiccant prevents condensation and improves insulating performance. Graco equipment involved in desiccant application includes the [Graco Therm-O-Flow](#) for hot melt materials, and [Graco Supply Systems](#) for dispensing materials at ambient temperatures.

Primary sealing

The purpose of a primary seal on insulating glass is to seal multiple pieces of glass together with a spacer to lock out moisture. Primary sealing requires a fast-bonding hot-melt material or a fast-set sealant. Graco equipment used in primary sealing are a [Graco Therm-O-Flow 200](#) or [Graco Therm-O-Flow 20](#).

Secondary sealing

Secondary sealing is a process in the manufacturing of insulating glass in which a spacer is adhered to the glass with the primary seal to hold the unit in place. The secondary seal adds structural stability to the insulating glass and provides a moisture barrier. Common materials using in creating a secondary seal are two-component or reactive hot melt. Graco equipment used in secondary sealing are a [Graco Hydra-Mate](#), a [Graco 8900 Proportioner](#) or a [Therm-O-Flow](#).

Corner Key Sealing

The corner joint of a window can be held together with a corner key design and adhesive. A corner design is usually proprietary within manufacturing companies. Corner key sealing requires a fast-bonding hot-melt material or a fast-set sealant. Graco equipment used in primary sealing are a [Graco Therm-O-Flow 200](#) or [Graco Therm-O-Flow 20](#).

Roll Coating

Roll coating refers to the process of coating a laminate with adhesive. Some window and door components have a laminated layer of wood on a composite material to give the appearance of real wood with the benefits of weather resistant materials.