

MeltonCraft™ Cellular PVC Square Column and Newel

Overview of Materials and Installation Instructions

Column shafts are made of 0.625" thick cellular pvc. Raw material is extruded 0./625" thick cellular pvc sheet stock. Sheet stock is cut and machined into flat stock parts which are then assembled using proprietary miter fold process into column shafts. Column shafts are assembled using galvanized, ¼" narrow crown, 1 ¼" long staples, Siroflex brand DUO-SIL Urethane Acrylic Emulsion Sealant and Adhesive, and The Lord Corporation model 7545 two-component urethane adhesive.

Column cap and base are ach made of various combinations of extruded 0.625" thick cellular pvc, extruded pvc moldings, and cast polyurethane.

GENERAL INSTALLATION PRECAUTIONS AND METHODS

TEMPERATURE RELATED ISSUES:

Columns become more brittle in colder temperatures. When the columns become more brittle, they are more susceptible to damage. The type of damage that might occur is a fractured column face or miter joint caused by the impact of dropping the column on a hard surface or striking the column face with a hammer. It is recommended that the column be warmed to 50 degrees to 55 degrees before installing. This can be easily accomplished by moving the column into an enclosed area such as the garage or the interior of the unfinished building. Use a kerosene or propane space heater to warm the enclosed area and allow adequate time for the temperature of the columns to warm up as well. The columns can then be installed with reduced risk of damaging them in the process. The outdoor ambient temperature can be considerably colder than 50 Degrees, but if the columns themselves have been warmed up, they will be able to be installed without the difficulties you might encounter if they are cold.

If you are unable to warm the columns before installation, you should first drill pilot holes before screwing or nailing them together. Be careful when nailing the columns and try to avoid striking the column faces with a hammer. Noted that if your particular columns are designed in such a way that they include miter-folded corners, which have not been folded, closed, they will definitely be susceptible to fracture if they cannot be warmed. If a miter-folded corner does fracture, you will still have a good miter joint, which consists of (2) separate pieces.

CUTTING AND FASTENING:

The cellular pvc material that the columns are constructed of can easily be cut with conventional carpentry and woodworking tools. Pneumatic finish nailers and staplers can be used to fasten cellular pvc parts together. Large pneumatic framing staplers and nailers are not suitable for fastening this material. The percussion of the drivers of these large nail guns can fracture the pvc material.

Coarse thread, galvanized drywall screws are also suitable for fastening cellular pvc parts together. Longer screws are also good for fastening the column cap and base to the building structure. Pilot holes are helpful but not necessary. It is suggested that pilot holes be used for screws longer than 1 5/8".

PAINTING AND FINISHING:

Caulk where required using Siroflex brand SUO-SIL Urethane Acrylic Emulsion Sealant and Adhesive provided by manufacturer. Putty any staple or nail holes using acrylic putty or caulk. Lightly sand or scuff surface of column with ScotchBrite type pad. Clean surface of column to remove any dirt or oil residue with light detergent and water, or use spray cleaner such as Windex. Be sure soap residue is removed with clean water. Apply one coat of high quality, 100% acrylic exterior primer and one or more finish coats of high quality, 100% acrylic exterior paint.

DELIVERY, STORAGE, HANDLING AND REPAIRS:

Transport, lift, and handle columns with care, avoiding excessive stress and preventing damage.

Columns should be handled in the same manner as you would handle finished interior millwork. Do not drop columns. Store columns indoors, in a safe place where they will not be exposed to damage. It is preferable to store columns in temperatures above 40 degrees F. Columns become more brittle in colder temperatures. Do not place other items on top of columns while in storage. Do not stack columns on top of each other while in storage. Columns may be safely stored in shipping crate or may be removed from crate and stored standing up. If column is dented, fill dent with plastic automotive body filler such as Bondo. Sand filler flush with face of column, prime, and repaint.

If column is struck by a hammer or other hard object and cracked, glue crack with 5-minute epoxy glue. Fill area over crack and surrounding crack with Bondo. Once Bondo has dried, sand entire repaired area and feather the repair flush with the face of column. Prime the patched area and repaint.

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KD-WRAP & KD-FLAT INSTALLATION PROCEDURES

THE PVC COLUMN HAS NO TESTED STRUCTURAL PROPERTIES. The column is designed to install around a previously installed structural post. The structural post inside column, supplied by others, provides the load-bearing component of the column. Load-bearing capacity of column is determined by the physical properties of the structural post. Architect will specify load-bearing requirements of the structural post. Structural post must be of CCA treated lumber, CCA treated engineered lumber or steel. **Do not use untreated lumber for structural posts.** Possible infiltration of water and possible condensation inside pvc column shaft will cause degradation of untreated lumber!

Bottom of structural post should be mounted to wooden deck or concrete/masonry porch floor using code-approved method and code approved post anchor. Top of structural post should be mounted to beam using code-approved method and code approved post-to-beam mounting bracket.

Decorative columns should be installed using the following procedures. These columns, caps and bases are designed in 2 sections each. The first section is slid around the structural post and the second section is then folded or mounted to the first to complete the "wrapping" of the structural post. A mounting block, which will fit snugly inside the column shaft, should be mounted to the top of the pier or floor below, and to the bottom of the beam above. Depending on the design of the column, pvc mounting blocks may or may not be provided by the manufacturer. Pressure treated 2x lumber is also suitable for site-built mounting blocks. Installed should mount blocks to the beam above and floor below to affix the shaft of the column in the desired location. The bottom mounting blocks should be screwed into any masonry or concrete using Tapcon type concrete screws. Powder

actuated fasteners should NOT be used to mount the blocks as they can fracture the blocking material, masonry or concrete. If the mounting surface is wood, corrosion resistant nails or screws are suitable for the mounting blocks. Nail or screw through the column shaft into the mounting blocks to permanently locate the column. If needed, additional blocking should be mounted to the existing structural post inside the column shaft, before the column shaft is closed, to insure a solid installation.

After assembly of the column shaft, the decorative column base and decorative column cap should be attached to the column shaft with corrosion resistant finish nails or screws. The joints, which exist where the two parts of column join, should be glued and fastened together.

The manufacturer will supply either of the following adhesives:

Siroflex brand DUO-SIL Urethane Acrylic Emulsion Sealant and Adhesive will be supplied by the manufacturer. This adhesive should be applied to the open joints of the two column parts before fastening the 2 parts together with ¼" narrow crown galvanized staples applied with a pneumatic finish staple gun. The joints being fastened will be miter joints. The stapler should be held in 3/8" to ½" from the outside edges of the miter joint. If the stapler is held too close to the edge of the miter joint, the staples will not have adequate material to fasten into. Holding the stapler too close to the edge of the miter can also cause small fractures in the edge of the miter joint. If a pneumatic finish stapler is not available, a pneumatic finish nailer with galvanized finish nails or hand driven galvanized finish nails may be used instead.

Any excess DUO-SIL, which squeezes out of the miter joint or which inadvertently, gets smeared on the face of the column should be cleaned off the face of the column with a damp rag before it sets.

OR

The manufacturer will supply PL POLYURETHANE PREMIUM CONSTRUCTION ADHESIVE or GE PREMIUM 200 POLYURETHANE CONSTRUCTION & SUBFLOOR ADHESIVE. This adhesive should be applied to the open joints of the two column parts before fastening the 2 parts together with ¼" narrow crown galvanized staples applied with a pneumatic finish staple gun. The joints being fastened will be miter joints. The stapler should be held in 3/8" to ½" from the outside edges of the miter joint. If the stapler is held too close to the edge of the miter joint, the staples will not have adequate material to fasten into. Holding the stapler too close to the edge of the miter can also cause small fractures in the edge of the miter joint. If a pneumatic finish stapler is not available, a pneumatic finish nailer with galvanized finish nails or hand driven galvanized finish nails may be used instead.

Any excess adhesive, which squeezes out of the miter joint or which inadvertently, gets smeared on the face of the column should be cleaned off the face of the column with a rag dampened with paint thinner, turpentine, or mineral spirits, before it sets.