

The Manufacturer has provided these instructions as installation guidelines in accordance with ASTM E-330. The manufacturer, however neither installs the panels nor has any control over the installation. It is the responsibility of the contractor and/or the installer to ensure panels are installed in accordance with these instructions and any applicable building codes. The manufacturer assumes no liability for either improper installation or personal injury resulting from improper use of or installation.

Basic Use

Ekena products are intended for interior or exterior nonstructural use as a lightweight veneer facing on masonry, metal framed, or wood framed construction for architectural aesthetics. These products are suitable for use on residential and commercial projects of many types. Ekena foam veneer panels are made of high-density polyurethane and molded from actual stone, rock or brick. A unique manufacturing process creates lightweight simulated stone panels that provide enhanced durability, water resistance, significant weight reduction, and lower installation costs. No additional foundation or structural support is required. Installation is quick and easy, and costs far less than a full thickness natural or cement stone wall.

General Guidelines

Sheathing must be properly fastened to the framing according to building code requirements and/or the sheathing manufacturer's recommendations. Ekena products should be applied over a sheathing that provides a smooth, flat, solid, non-expansive, stable surface. For exterior applications make sure sub wall assembly is weather tight before applying Endurathane Wall Panels. Wall sheathing should be weather resistant, or covered with a weather resistant barrier such as fanfold insulation, house wrap or building paper. Consult local building codes for complete information and requirements.

Ekena products alone may not constitute a waterproof installation!

Flashing and caulking should be added as needed in such areas as transition from Ekena panels, ledgers and/or trims to other siding products, windows, and doors to control moisture and protect the sub wall assembly. Urethane paneling expands and contracts with temperature changes (average shrinkage on exposed paneling is about .039" per foot), so install panels with appropriate number of screws. Never leave cut edges exposed; exposed polyurethane will discolor and become obvious with exposure to sunlight. Use Ekena touch-up paint or color match with a good quality exterior latex paint. Any deviation from these standard installation instructions must be made watertight by use of a vapor barrier behind the product and then sealed with grout and painted with touch-up paint.



Basic Use

Be sure to store all panels flat, in the box, until ready for installation. Store Ekena products at 65°F when possible. Do not store in direct sunlight before installing.

Safety Equipment

Safety glasses, dust mask, gloves. Cured adhesive on bare skin will not come off i mmediately with washing and will cause skin to darken. Cured adhesive and discoloration will come off in about 3 days.

General Installation Guidelines

Step 1 Mark the wall horizontally where you want the bottom of the panel to rest and partially drive a nail at one corner for attaching the chalk line.

Step 2 Go to the next corner and repeat step 1.

- **Step 3** Attach the chalk line to one corner and pull taut. Make sure the line is level by using a line level.
- **Step 4** Snap the chalk line.
- **Step 5** Backset the panel "x" amount of inches from the edge depending on the corner that will be used. For mitered corners both sides of the corner should be cut from the same panel, this will cause the individual stones to wrap around the corner.
- **Step 6** Starting from the left, take a full size panel and place the bottom of the panel on the chalk line, screw and/ or glue the panel to the substrate following the appropriate instructions explained in the "Fastening System Application" section of this manual (page 3-4)
- Step 7 Make sure that the panel is level. Working left to right continue installing panels in the bottom course making sure every panel is level and attached accordingly. The last panel of the row should be cut "x" amount of inches from the edge depending on the corner that will be used, if no corner will be used then measure to the edge of the wall and cut.
- Step 8 f your wall requires multiple rows of panels; start the next row by taking a piece you originally cut off to use at the start of your next run or offset each row by a half sheet. This will make pattern repeats less noticeable. Repeat steps 6 and 7 until project is finished.
- Step 9 Scratches and small damaged areas can be touched up easily. Not all colors supplied are necessary for the touch up job. Size, color and depth of damaged area will determine which touch up colors to use. Note: You might have to mix different colors to achieve different shades. Add water as needed.
 - Dilute latex touch up paint with about 30% water in a small plastic or paper cup
 - Apply a small amount of diluted paint to moist cloth, brush, sponge or Q-tip. Dab into desired area. If applied to undamaged areas, wipe quickly with clean damp cloth. Start with lighter colors first, let color dry 10 to 15 minutes before applying the darker colors.
 - Wipe excess paint off immediately. It is better to apply a small amount in translucent shades and darkenthe area gradually to blend in. Keep dabbing and blending with a damp cloth until repair area blends in with its surroundings.



Tools Required

Circular saw or table saw, jigsaw or sabre saw, level, measuring tape, chalk line, power or cordless drill, 4" drill bits or extension, framing square or speed square, wood rasp and fasteners. Please refer to the table below for appropriate fastener.

Preparation

Drywall/Wood Preparation – The wood or drywall must be well attached to the framing studs. Make sure studs are straight and true to avoid bulges or dips in the finished wall. On existing structures make sure to remove any loose siding and replace rotten wood or OSB. Scrape off loose caulk. Remove all downspouts, light fixture, vents etc in the area to be covered with Endurathane Wall Panel.

Application for 1 1/4" Thick Panels

8" oc horizontally, three (3) rows along each siding panel, one (1) row 1" from the top stone edge, one (1) row 1" from the bottom stone edge, and one (1) row at the panel center; at least two (2) fasteners from each row hit a stud (1" edge distances). See Figure 1, specimen diagram.

Application for 3/4" Thick Panels

4" oc horizontally, three (3) rows along each siding panel, one (1) row 1" from the top stone edge, one (1) row 1" from the bottom stone edge, and one (1) row at the panel center; at least three (3) fasteners from each row hit a stud (1" edge distances). See Figure 2, specimen diagram.

	Drywall/Wood	Light Gauge Metal (20-25)	Heavy Gauge Metal (18+)
Interior Installation	Head - Flat	Head - Bugle	Head - Scavenger
	Drive - #2 Phillips	Drive - #2 Phillips	Drive - #2 Phillips
	Length - 2 1/2"	Length - 2 5/8"	Length - 2 5/8"
	Diameter - #9	Gauge - #8	Gauge - #8
	Point - Type 17	Point - Streaker	Point - Drill
	Thread Size - 11	TPI - 18	TPI - 18
	Coating - Ruspert ™	Coating - Black/Gray Phosphate	Coating - Black/Gray Phosphate
Exterior Installation	Head - Flat	Head - Bugle	Head - Bugle
	Drive - #2 Phillips	Drive - #2 Phillips	Drive - #2 Phillips
	Length - 2 1/2"	Length - 2 5/8"	Length - 2 5/8"
	Diameter - #9	Gauge - #8	Gauge - #8
	Point - Type 17	Point - Drill	Point - Drill
	Thread Size - 11	TPI - 18	TPI - 18
۵	Coating - Ruspert ™	Coating -GrabberGard	Coating - GrabberGard

Substrate



Figure 1

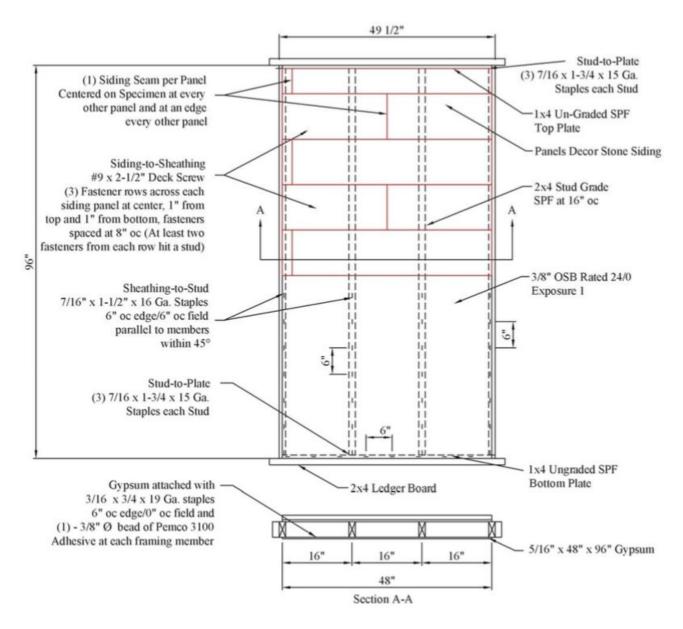
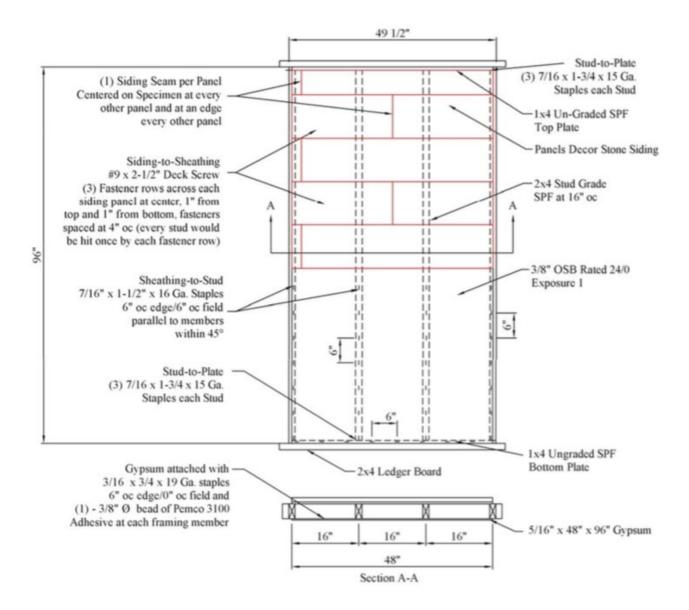




Figure 2





Adhesion Fastening

Interior & Exterior Cement/Masonry Substrates

PL® Premium Polyurethane Construction Adhesive is a one component, polyurethane based, moisture-curing adhesive. It is VOC compliant and contains no chlorinated solvents or water. PL® Premium provides superior adhesion to most common construction materials. It can be used for interior or exterior projects and is three times as strong as conventional solvent based construction adhesives. It is also waterproof, paintable and cures even in cold temperatures. Ideal for sub floor installations, bonds most common construction materials such as concrete, stone, marble, slate, masonry, brick, cement-based products, ceramic, fiberglass.

Tools Required

Circular saw or table saw, jigsaw or sabre saw, level, measuring tape, chalk line, power or cordless drill, 4" drill bits or extension, framing square or speed square, wood rasp utility knife, caulking gun, trowel, tool to puncture cartridge seal, plant mister bottle containing water and PL® Premium Polyurethane Construction Adhesive.

Preparation

Use above 40°F (4°C). Surfaces must be clean, dry and free of frost, grease, dust and other contaminants. Pre-fit all materials and protect finished surfaces. If using cartridge format, cut nozzle at a 45° angle to desired bead size and puncture inner seal. Be very careful not to allow PL® Premium to cure on a finished surface.

Application

Apply adhesive to one surface of the material being bonded. Press the surfaces firmly together. Materials may be repositioned within 45 minutes after applying the adhesive. If bonding two non-porous surfaces (such as foam, metal and fiberglass), add water in the form of a very light or atomized spray from a plant mister bottle to the extruded adhesive. The repositioning time will then be reduced to less than 30 minutes. Use mechanical support for 24 hours while the adhesive cures.

Clean-up

Clean tools and uncured adhesive residue immediately with mineral spirits in a well-ventilated area to the outdoors. Remove cured adhesive by carefully scraping with a sharp-edged tool.