

Installation Guide for PLYROCK



Impact-resistant



Lightweight and Resistant



Plague-resistant



Water-repellent



Moisture-resistant



Non-combustible



Easy Installation

 **Plycem**[®]
Advanced Technology in Fiber Cement

INSTALLATION GUIDE FOR PLYROCK

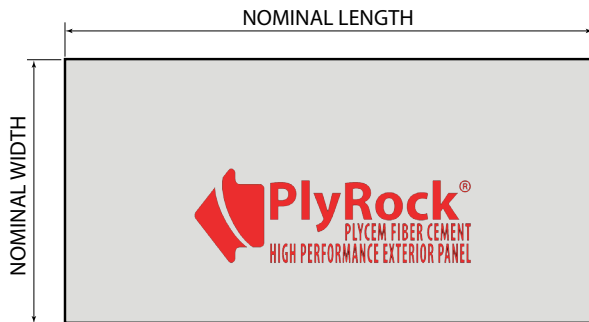
Construction system for fully smooth indoor or outdoor walls with invisible joint. In order to guarantee the result, use the full PlyRock system by Plycem according to the application instructions indicated in this manual.

SYSTEM COMPONENTS

The PlyRock system is composed of fiber cement panels and complementary elements that constitute the wall system.

PlyRock Panel

PlyRock panels are made from cellulosic fibers reinforced with cement. They are 0.23", 0.31", 0.39", 0.47", and 0.55" thick, 4 feet wide, and 8 feet, 10 feet, and 12 feet long (ask for stock)

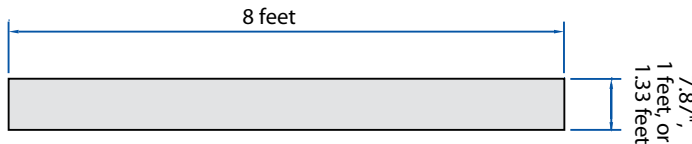


Note:

- The color of the 0.39", 0.47", and 0.55" panels may vary depending on the country.
- Availability of panels longer than 4 feet should be checked in each country prior to its consideration in the specification or construction of the project.

PlyRock Fascia

The PlyRock Fascia can be 0.31" and 0.39" thick, 7.87", 1 feet, or 1.33 feet wide by 8 feet long (ask for stock)



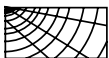
Structure



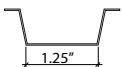
PA 1.2"x4" CAL.20 (min.) Outdoors
PA 1.2"x4" CAL. 24 (min.) Indoors



PE 2"x4" CAL.20 (min.) Outdoors
PE 1.2"x4" CAL. 24 (min.) Indoors
PE 2"x4" CAL. 24 (min.) Indoors (joints)



Semi-hard wood piece 1"x2"



Furring Channel or
Omega profile (template) Cal 24 (min.)

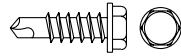


Corner Cal. 24 (min) strap and perimeter
(1" x 1")

Fastenings



LH 8-050 SCREW (structure)
Joint between PE, PA profiles



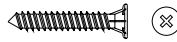
MM 10-075 SCREW (structure)

Structural joints on corners, intersections, and connections.



PH 8-125 SCREW (Plycem on steel)

Fastening of the PlyRock panel to cal. 20 metal structure.



PL 6-100 SCREW

(Plycem on steel or wood)

Fastening of the PlyRock panel to wood or cal. 24 metal structure.



PL 8-175 SCREW (Plycem on wood)

Fastening of the PlyRock panel to wood structure.

Finishing Products



Sikaflex 15 LM



PlyRock joint mesh

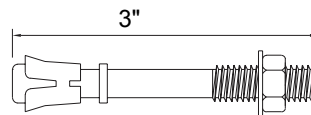


Gray PlyRock Mortar

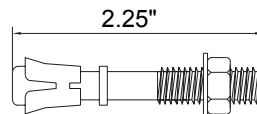


Reinforcement mesh for cement plaster

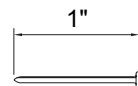
Floor Anchorage



3" EXPANSION ANCHORAGE

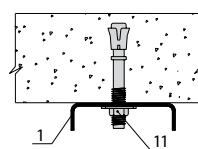


2.25" EXPANSION ANCHORAGE

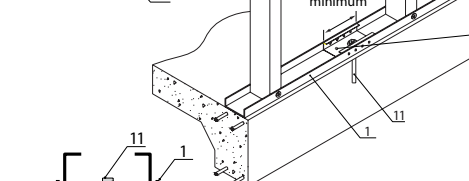
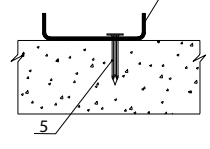


1" NAIL FOR CEMENT

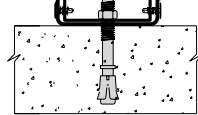
STRUCTURAL
OUTDOOR WALL



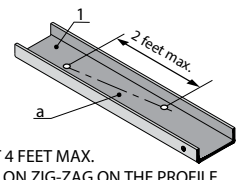
NON-STRUCTURAL
INDOOR WALL



PE SECTION USED
AS LOAD
DISTRIBUTION ELEMENT
(MIN. 5.90")



1. ANCHORAGE PROFILE (PA)
5. NAIL FOR CEMENT
11. EXPANSION ANCHORAGE AT 4 FEET MAX.
a. ALTERNATE THE ANCHORAGE ON ZIG-ZAG ON THE PROFILE



INSTALLATION GUIDE FOR PLYROCK

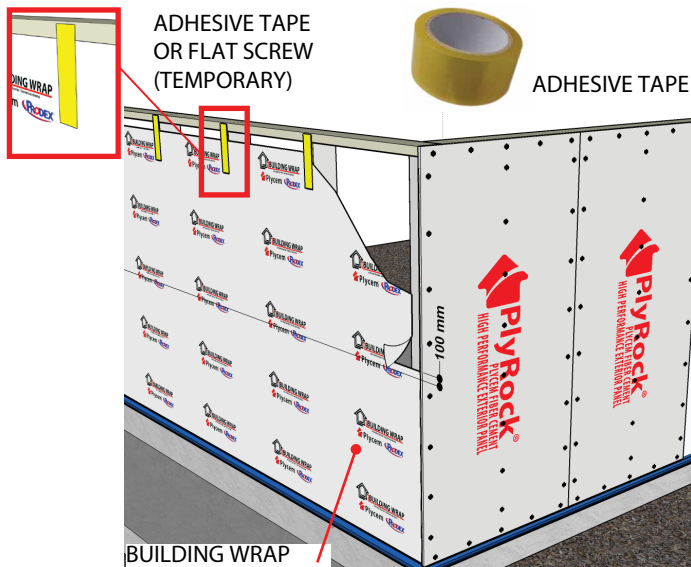
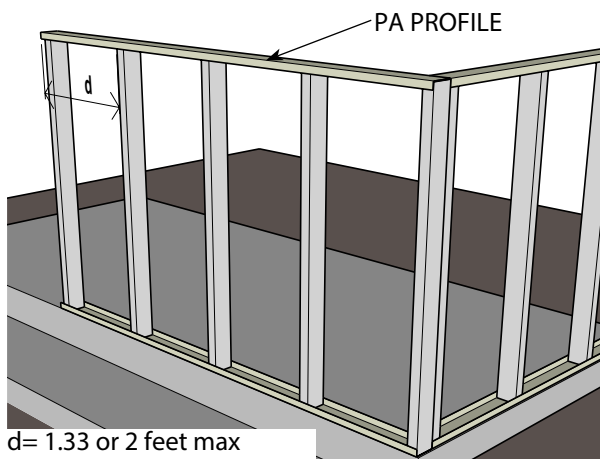
Tools



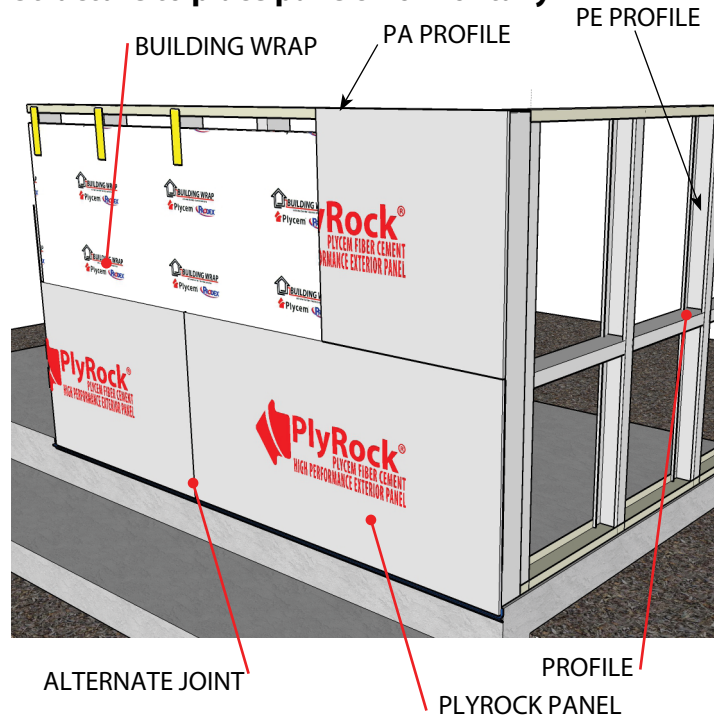
INSTALLATION INSTRUCTIONS

The metal frame will be caliber 24 (indoor wall -minimum) or caliber 20 (outdoor wall), with a maximum space of 2 feet. A moisture barrier (Building Wrap or the like) will be installed on the structure on the outdoor walls. The panels are fixed with the longest edge parallel to the posts, with Plycem self-drilling screws. The space between screws is 7.87". The fastenings will be placed according to the fastening scheme.

Structure to place panels vertically



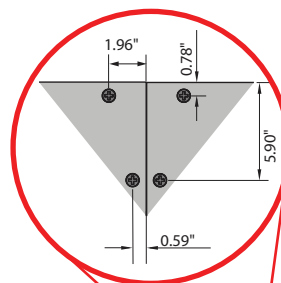
Structure to place panels horizontally



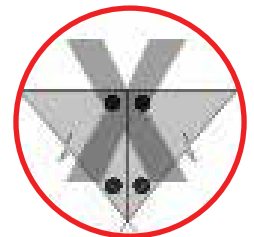
Note: The moisture barrier (Building wrap) is required on outdoor walls. On indoor walls, it is recommended in humid areas with no ceramic tiles.

FASTENINGS

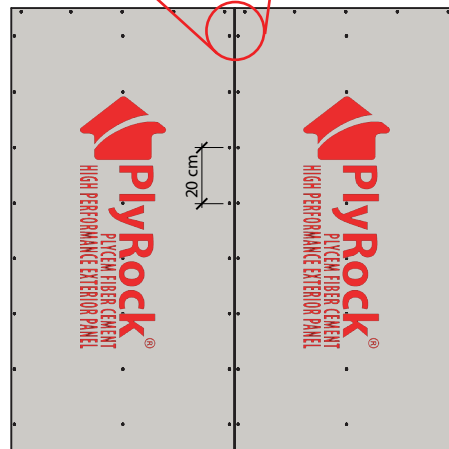
Correct fastening on the corner



Incorrect fastening



Incorrect fastening



INSTALLATION GUIDE FOR PLYROCK

TREATMENT OF JOINTS AND FINISHING

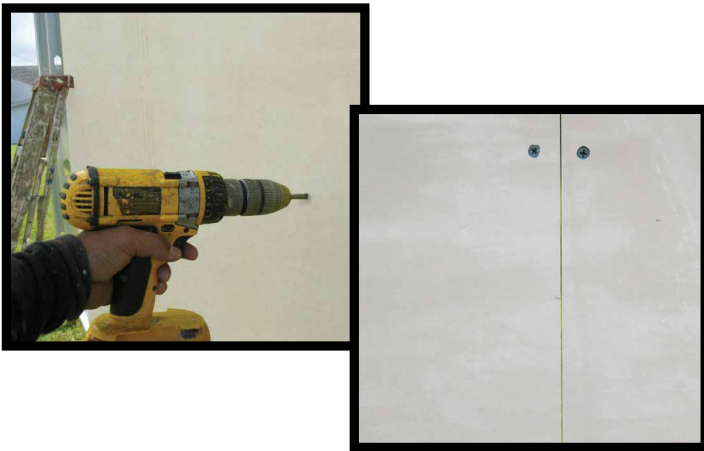
Use the Plyrock dry wall mortar for indoors and outdoors -designed to cover the joints of the fiber cement system from Plycem

Advantages of Plyrock Mortar

- It is applied directly on the surface.
- It does not require adding water, cement, or additives (ready to use)
- Finishing coating of Plyrock panels, thus providing a waterproofing and monolithic coating.
- It serves as basis for applying textured coatings, paint, tiles, etc.
- This product is flexible, and has great plasticity, high adherence, and resistance.
- Dries easily.

Application process: panels, joints, and finishing

1. Installation of Plyrock panel



Place the panels on the structure with the joints together. If there is any space between panels, fill it with Sikaflex 15 LM or the like.

2. Treatment of joint between panels

Step 1: Thoroughly mix the Plyrock dry wall mortar until it is homogenous.



Step 2: Apply a first coat of mortar on the entire area of the joints by using a 6" trowel. Fasten the mesh with the fresh compound -by centering on the joint. Avoid leaving any excess of mortar on the mesh.
Let it fully dry.



3. Surface finishing

The surface finishing can be obtained in two ways:

1. Using cement mortar for dry wall (base coat)
2. Using Plyrock mortar

Option 2: Using cement mortar for dry wall (base coat)

**1- Single-family house
(max. 2 levels and 3.28 feet high)**

Step 1: Prepare the base coat according to the manufacturer's instructions. Apply a coat of cement mortar (base coat) on the surface of the uncoated Plyrock panel and level the entire surface.



Step 2: Apply a second coat of cement mortar on the entire surface, and level the surface.



INSTALLATION GUIDE FOR PLYROCK

Step 3: You may apply a third coat or smooth the surface with a rubber trowel or apply a smooth finishing.



Note: Using a plaster reinforcement mesh is recommended -embedded on the first coat to increase the resistance to tension and bending of the Dry Wall cement mortar (base coat)

2- Commercial or Institutional Building

Step 1: Evenly apply a first coat of cement mortar to the surface.



Step 2: Immediately (without letting it dry), place the reinforcement mesh on the entire surface of the coated wall, and cover it with the mortar. Let it dry for some hours.



Step 3: Apply a second coat of cement mortar on the entire surface of the wall, and make sure that the mesh has been fully covered.



Step 4: You may apply a third coat, or smooth the surface with a rubber trowel or the like.



Note: Manufacturers of cement mortar recommend coat thickness of 0.05" approx.

Option 2: Using Plyrock Mortar

Step 1: Once the joint has been treated, apply one coat of PlyRock mortar on the uncoated surface. Avoid touching up the treated joint to ensure the plaster level.



Step 2: Apply a second coat of PlyRock mortar on the entire surface by ensuring the level of the surface.



Step 3: Before it dries, polish the surface with a hard sponge or an expanded-polystyrene plate.



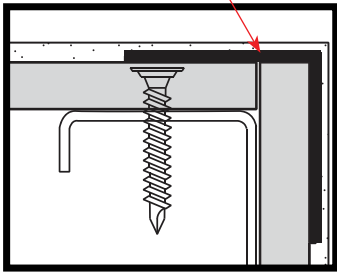
Make sure that you leave the same thickness on the entire surface. Finally, apply acrylic paint on the entire wall.

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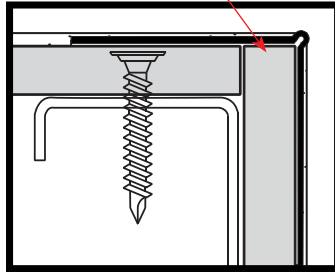
EDGE POLISHING

On the outer corners, wall edges, window and door edges, polish the joint by using PlyRock mesh or a plastic corner for lightweight walls.

PLYROCK MESH
ON CORNER



PVC PLASTIC
CORNER

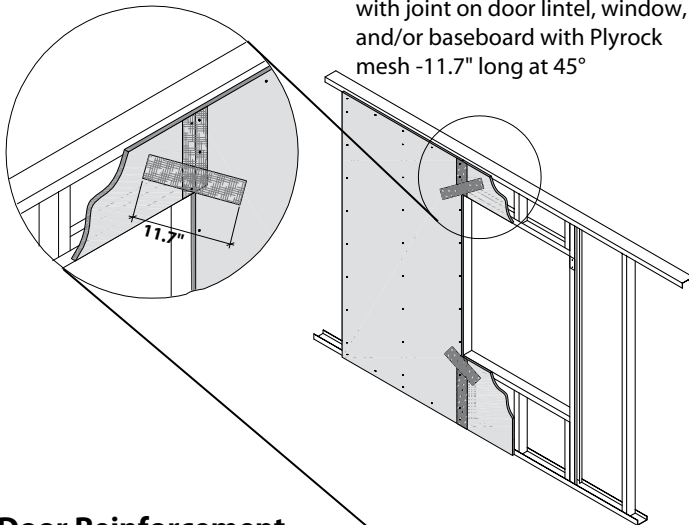


Note: The mesh should be adhered with PlyRock mortar on one side first. Let it dry and then glue the other side. The PVC corner is adhered using contact cement (do not use screws).

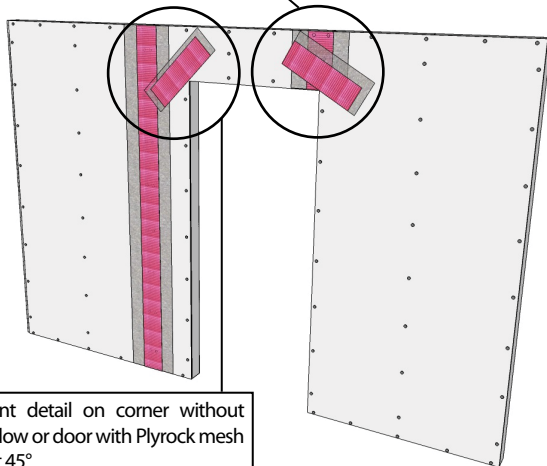
REINFORCEMENT DETAIL OF CORNER OR JOINT

Window Reinforcement

Reinforcement detail on corner with joint on door lintel, window, and/or baseboard with Plyrock mesh -11.7" long at 45°



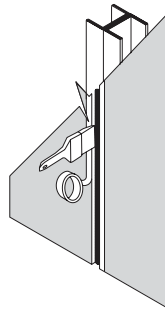
Door Reinforcement



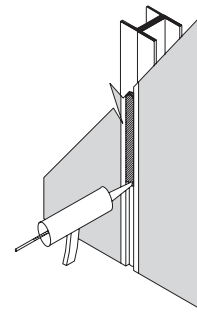
Reinforcement detail on corner without joint on window or door with Plyrock mesh -11.7" long at 45°

CONTROL JOINTS: Indoors

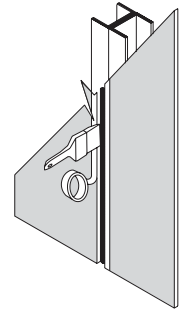
Place flexible joints every 24.01 feet (six 4 feet panels) on long walls or on joints with cement walls, beams, or floor substrates. On high places, control joints are recommended every 15.74 feet maximum.



Remove dust from the joint. Place the adhesive tape on both sides of the joint, and place the Plycem Fondo (0.23" Backer Rod)



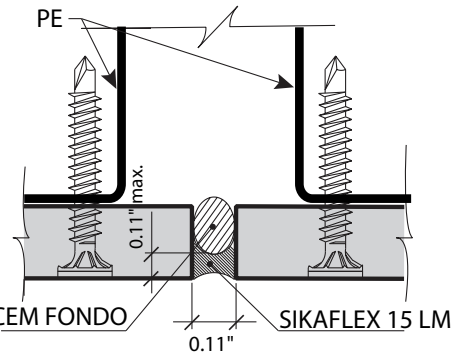
Apply Sika Flex 15LM or the like



Use a trowel. Manually polish with water and soap. Remove the adhesive tape.



PLYCEM FONDO
(BACKER ROD)

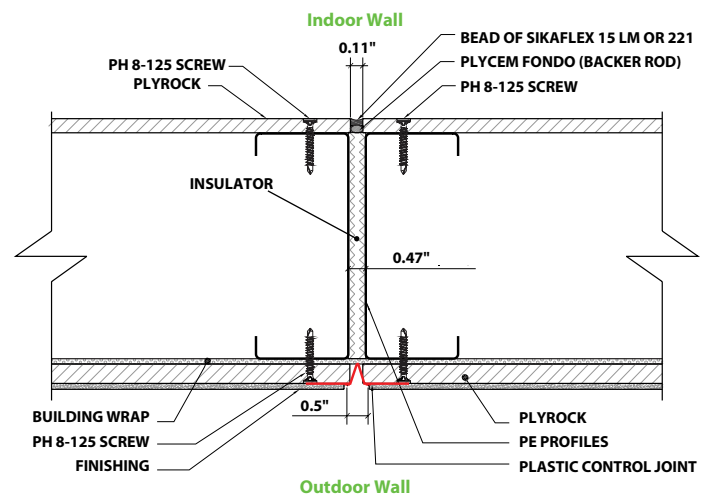


SIKAFLEX 15 LM
(O SIMILAR)

Note: a PVC plastic joint can be also used.

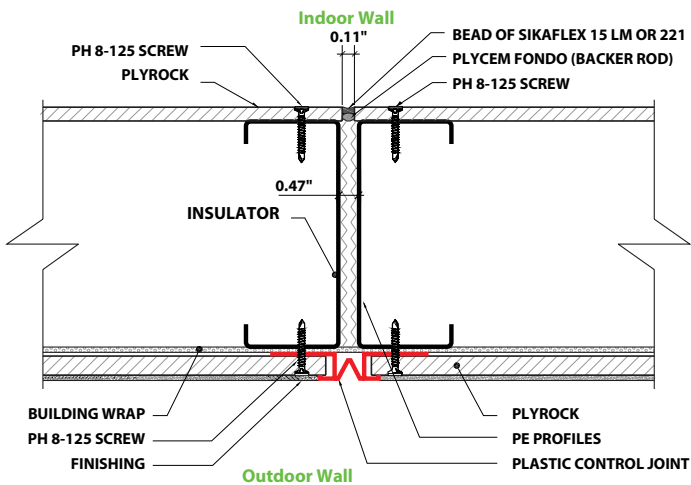
CONTROL JOINTS: Outdoors

Detail of "V"-type Control Joint Outdoors



INSTALLATION GUIDE FOR PLYROCK

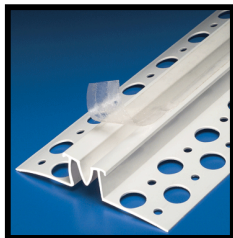
Detail of "M"-type Control Joint



"V"-type PVC Control Joint

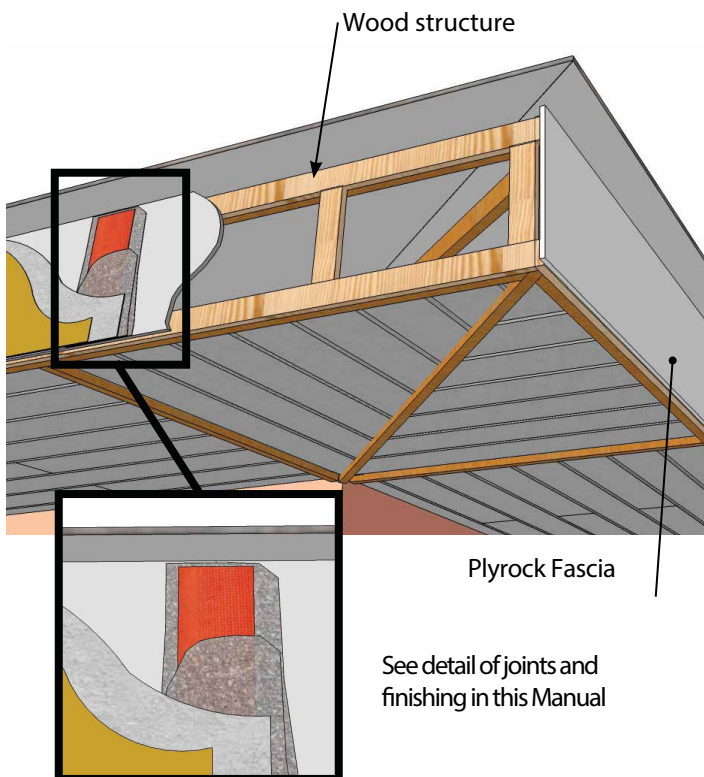


"M"-type PVC Control Joint

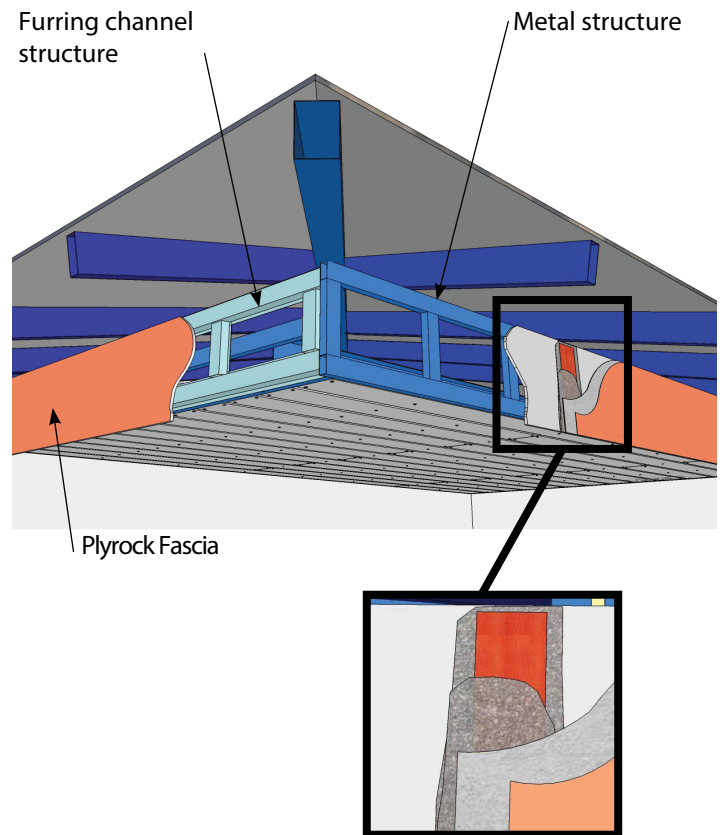


PLACEMENT OF FASCIA

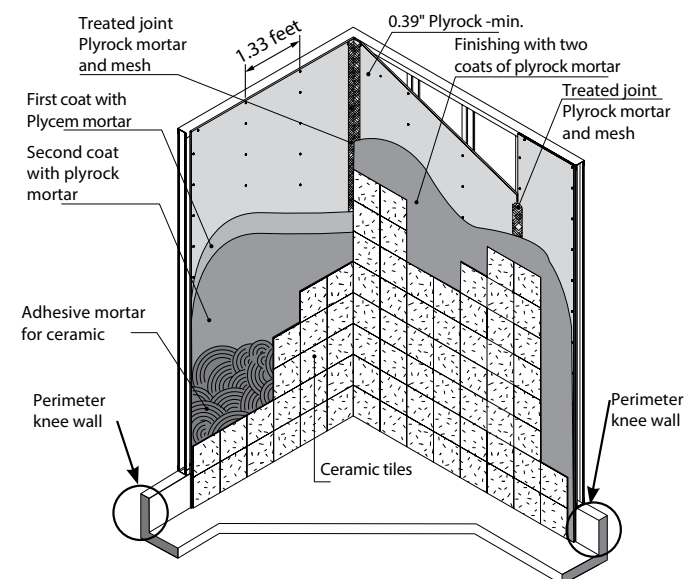
Wood structure



Metal Structure



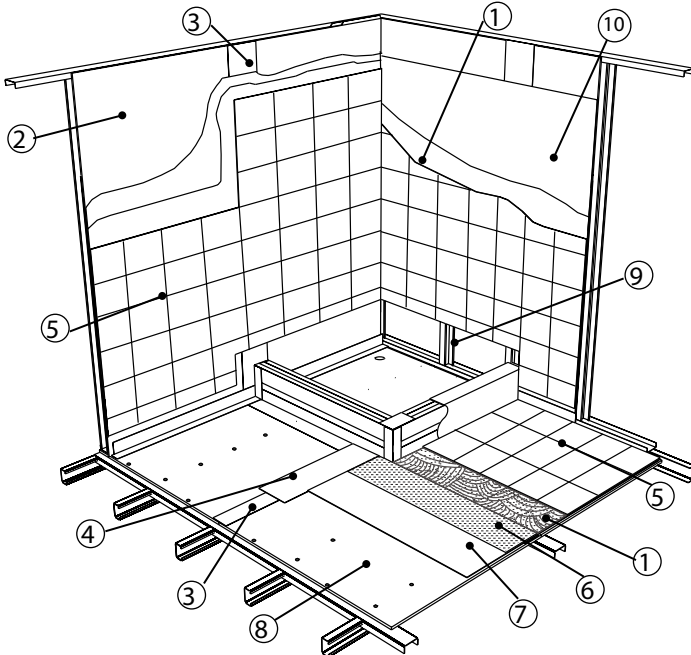
PLACEMENT OF CERAMIC FINISHING



IN HUMID AREAS -SUCH AS BATHROOMS, KITCHENS, AND HIGH-TRAFFIC AREAS, USE STRUCTURE EVERY 1.33 FEET AND 0.39\"

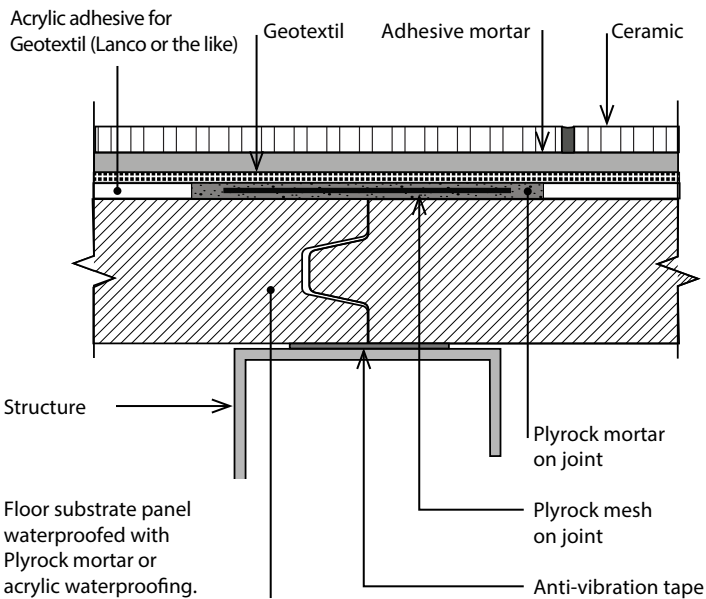
INSTALLATION GUIDE FOR PLYROCK

PERIMETER KNEE WALL IN HUMID AREAS

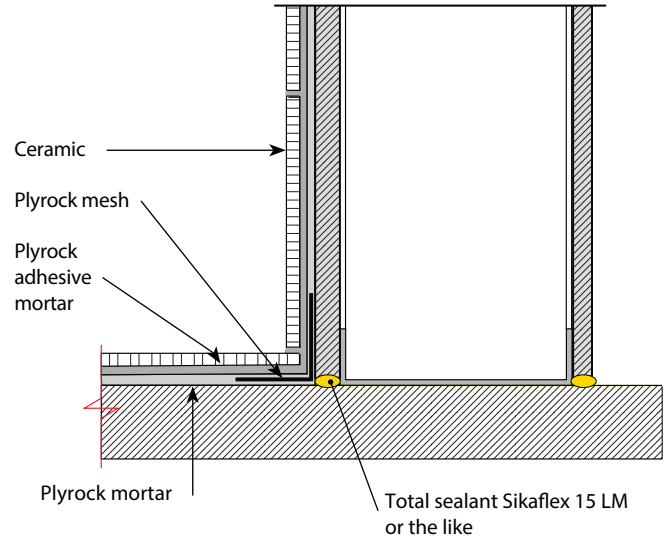


- | | |
|---|---|
| 1. Adhesive mortar | 8. Floor substrate panel waterproofed with Plyrock mortar or acrylic waterproofing. |
| 2. 0.39" Plyrock -min. | 9. Vertical post at 1.33 feet |
| 3. Plyrock mesh on joint | 10. Plyrock mortar on wall |
| 4. Plyrock mortar on joint | |
| 5. Ceramic floor | |
| 6. Geotextil | |
| 7. Acrylic adhesive for Geotextil (Lanco or the like) | |

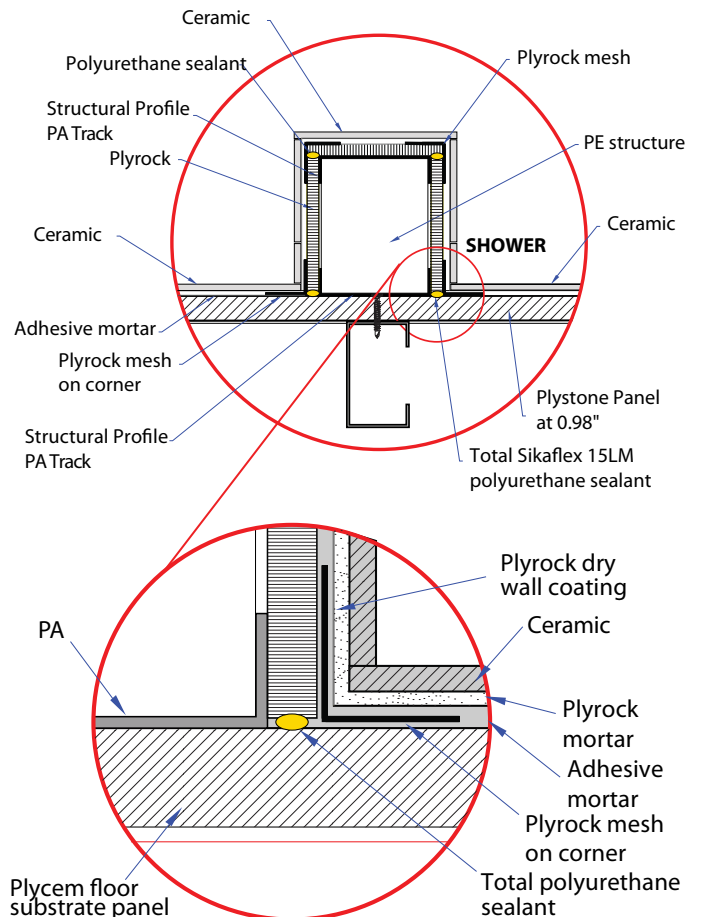
TREATMENT OF JOINTS ON FLOOR SUBSTRATES



WALL SEALANT



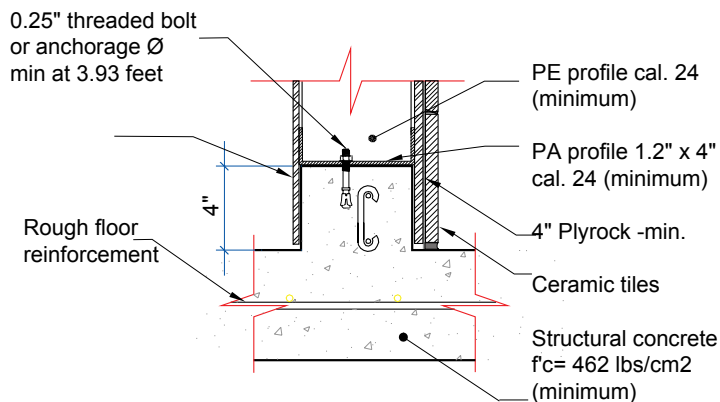
KNEE WALL SEALANT AND LIGHTWEIGHT WALLS



NOTE: The sealant on the joint of Plyrock panels with floor substrates should be total. Making waterproofing tests before placing the ceramic is recommended.

INSTALLATION GUIDE FOR PLYROCK

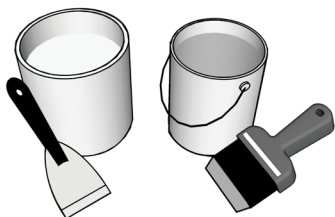
PERIMETER KNEE WALL IN HUMID AREAS (CONCRETE FLOOR SUBSTRATE)



NOTE: THE WIDTH OF THE KNEE WALL WILL DEPEND ON THE WIDTH OF THE PROFILE TO BE USED.

PAINT

To give the PlyRock system a finishing, use 100% high quality acrylic latex paint or coating. Always follow the manufacturer's instructions. To guarantee the maximum performance of the product, apply a 100% latex primer and paint to all the areas that have been cut.



STRUCTURE AMOUNTS

MATERIAL	WALL HEIGHT	PERFORMANCE
PE Profile	8 feet high @ 1.33 feet	0.108 un. / m ²
PE Profile	10 feet high @ 1.33 feet	0.86 un. / m ²
PE Profile	8 feet high @ 2 feet	0.71 un. / m ²
PE Profile	10 feet high @ 2 feet	0.56 un. / m ²
PA Profile	8 feet high	0.135 un. / m ²
PA Profile	10 feet high	0.108 un. / m ²
LH 8050 screw	units	4 un / PE post

PERFORMANCE OF THE PLYROCK SYSTEM

MATERIAL	UNIT	PERFORMANCE
Plyrock mortar Joint + surface	55lbs pail	15 to 20 m ² / pail
	22lbs bag	6 to 8 m ² / bag
	11lbs bag	5 m ² / bag
Joint only	11lbs bag	19 ml
	55lbs bucket	90 ml
Cement mortar sac 44 lbs (2 coats of 0.05")		6 m ²
Cement mortar sac 55 lbs (2 coats of 0.05")		7.5 m ²
Reinforcement mesh for cement plaster		from 40 to 45 m ² / roll
Plycem panels	4 feet x 8 feet	2.97 m ² / panel
	4 feet x 10 feet	3.72 m ² / panel
Mesh for joints	15.91 feet / roll	59 m ² / roll
PH8-125 screw	Plyrock h= 8 feet	42 un. / panel
	Plyrock h = 10 feet	55 un. / panel
Building Wrap	4 feet x 11.48 feet	39.2 m ² / roll

NOTE:

The performance indicated for PlyRock mortar includes the two coats described in the application steps. The performance values may vary depending on the application at the work site. These are recommended values and they do not replace those calculates in a detailed budget.

The Plycem Guarantee applies for the full PlyRock system, which includes the panel, screws, mesh, and structure recommended by Plycem. The installation process should be made according to the steps indicated in this manual.

Structural recommendations presented here should be verified by an estimator engineer or suitable professional that adjusts them to the specific requirements of the project and to the legal construction standards in each country.
Plycem assumes no liability regarding the information herein provided -even if prepared by specialists.

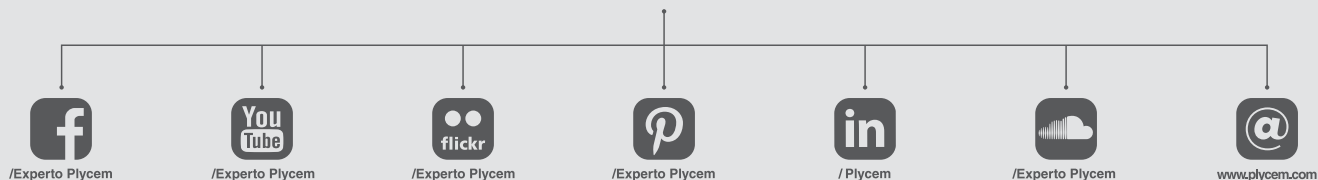


For more information contact us:

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- | | |
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Scope at www.inteco.or.cr

Manufactured by:

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The Plycem Company
A company with certified management system

