

Product Sheet

Curve-Corners for Drywall

Description

- Preformed Interior curved wall and ceiling panels for installation with Drywall Wall Systems
- Create Vertical and Horizontal Curved Wall Transitions
- Eliminates the need to attempt to bend drywall onsite.
- For use as curved corners where the radius is below the practical limit for bending drywall but greater than available as vinyl or metal trim ($2'' > \text{radius} > 24''$)
- Install and finish as easily as standard drywall

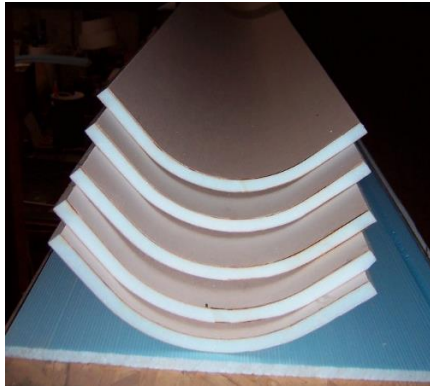


Fig 1: Typical 90 deg. inside Corner 10 in Radius



Fig 2: 90 deg. Inside Corner 24 in Radius, 8ft and 10ft Length

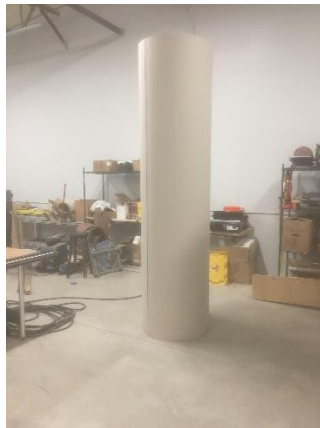


Fig 3: Column Cover 30 in Diameter, 10ft Length



Fig 4: Arch Kit, 8 in Radius

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Applications

For use in all Residential and Commercial Interior Building Applications

Length – 8' or 10'. Custom lengths upon request

Thickness – ½" or 5/8". Custom thickness upon request

	Available radii	Configuration	Uses	Comments
90 degree angle	2" – 24"	May be either inside (concave) or outside (convex) corners	Corners in vertical walls, coving, cyclorama walls	Significantly reduced incidence of corner damage
180 degree stud wraparound	4 1/2", 4 3/4" to fit over 3 1/2" or 3 5/8" studs	Outside only	Finishing stud wall ends	Significantly reduced incidence of corner damage
Column covers	4" – 30" diameter as 2 piece. Larger columns as 4 pieces	Outside only	Finishing columns. Half columns may be used to hide features on flat walls	Reduces framing required
Soffits	Custom	Inside or outside	Soffits, suspended cloud features	Reduces framing required
Arches	To fit standard 30" & 36" openings	Corner radius, elliptical, round	Arches and decorative features	Reduces framing required

Installation and Finishing

1. For use with conventional wood or metal stud framing. Panels typically have a 2 ¼" flats coming off the end of the curved section. Typically this is applied to a double stud with the flat spanning the first stud and half of the second. For panels less than 12" radius additional studs are not required around the curve.
2. Install as conventional drywall. Typically it is easier to fasten the curved panel in position first and the flat drywall after. Panel edges are not finished and should always be butted against each other or against mating drywall.
3. If it is necessary to cut a panel for length preferably use a table saw with a sharp blade. Panels can also be cut with a sharp drywall knife but note that the panel must be cut all the way through and should never be snapped after cutting just one face as with drywall.
4. Mount with depth set drywall screws
5. Prior to taping, all surfaces should be thoroughly dry, and dust free
6. Tape and mud joints as for conventional drywall using materials from a reputable drywall supplier
7. Where applicable, utilize the curved sanding blocks supplied with the panels to ensure a smooth curve and smooth transition to adjacent flat drywall.
8. Panels can be skim coated if necessary for level finish specified.
9. Ensure joint is thoroughly dry before painting or applying other surface finishes.
10. Use finishes suitable for standard drywall.

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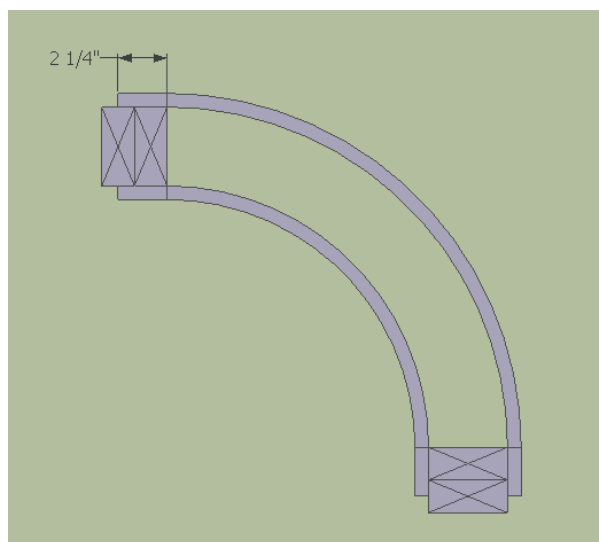


Fig 5. Typical stud layout for vertical corners

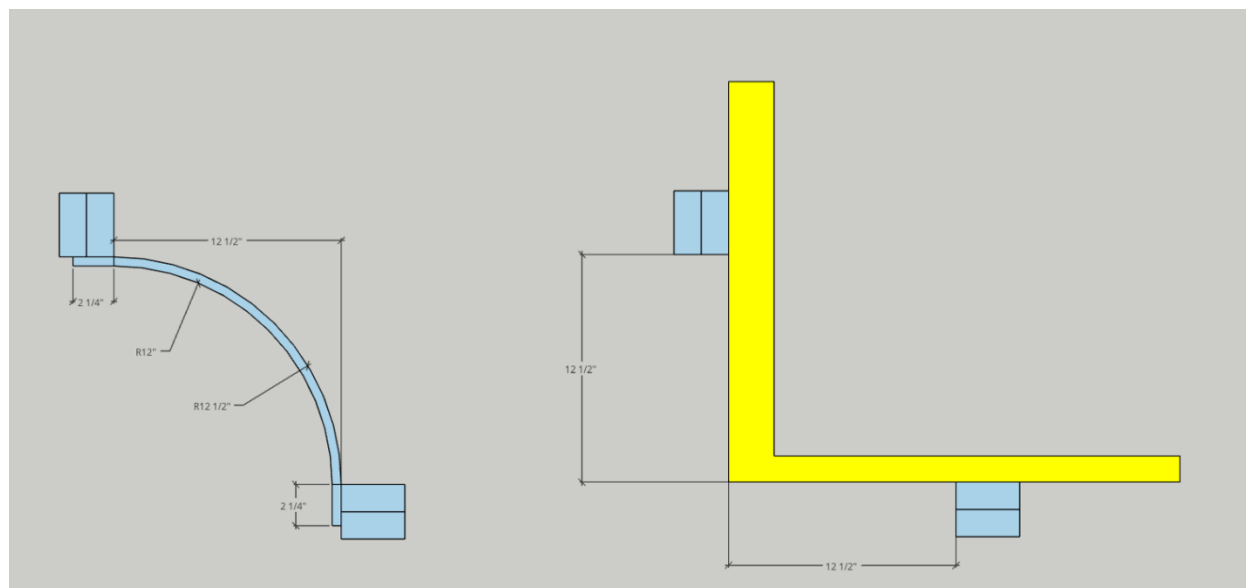


Fig 6: Typical Installation Guide for Inside Corner

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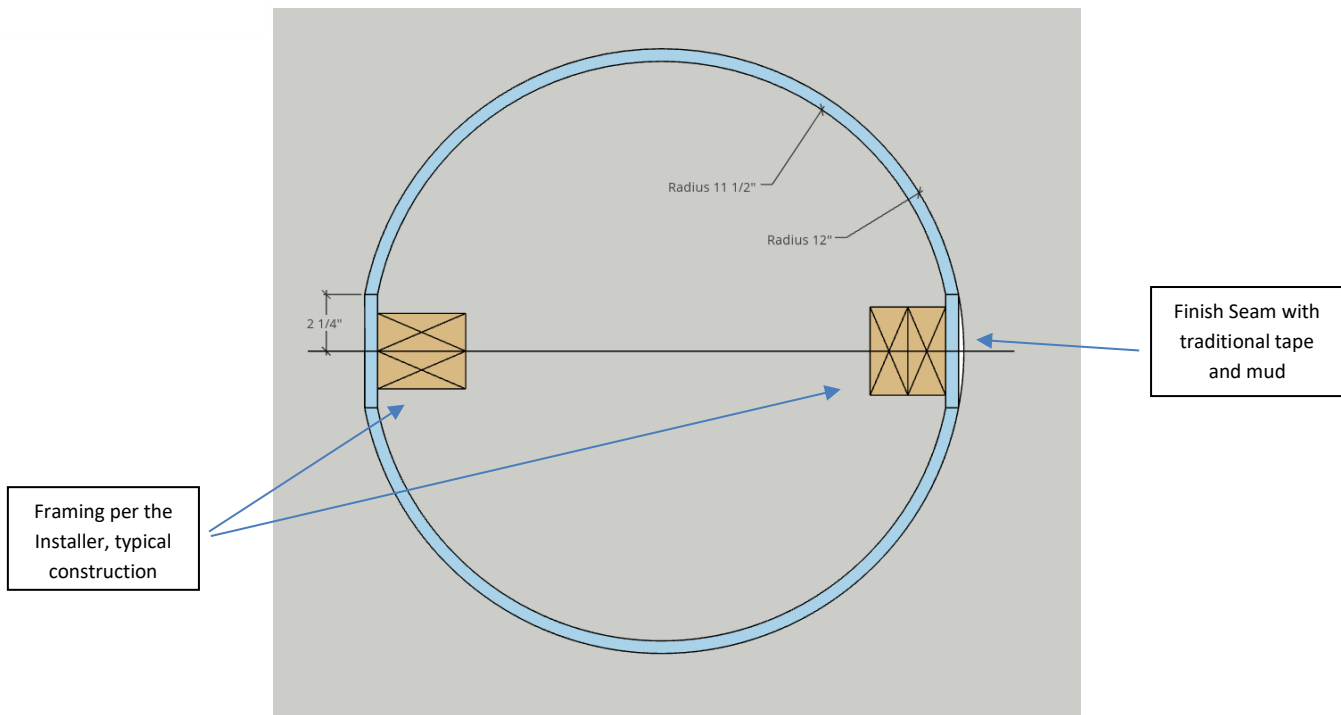


Fig 7: Typical Installation Guide for Column Cover

Construction and Materials

Curve panels are sandwich panels consisting of a foam core with resin impregnated fiberboard skins. The face has an additional layer of bonded drywall paper to ensure adequate bond for drywall mud and paint.

All raw materials are 100% US sourced.

Note the attached data is not a specification, rather to allow an informed comparison between existing drywall and Curved Panels. Two values are typically shown for drywall – the first generic data published by the Gypsum Association (document GA-235-10). The second is from standard 1/2" drywall tested back to back with Curved Panels. All testing was carried out at Saginaw Valley State University, ISO 9000 certified, Independent Test Laboratory.

It is the responsibility of the architect to determine suitability in end use application. Please consult national and local codes.

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Properties & Performance

Note the attached data is not a specification, rather to allow an informed comparison between existing drywall and Curve Panels. Two values are typically shown for drywall – the first generic data published by the Gypsum Association (document GA-235-10). The second is from standard ½” drywall tested back to back with Curve Panels. All testing was carried out at Saginaw Valley State University, ISO 9000 certified, Independent Test Laboratory. Where applicable Industry accepted procedures for Gypsum based panels was utilized. Supplementary Tests were developed by the manufacturer to provide additional insight to Product Performance

It is the responsibility of the architect to determine suitability in end use application. Please consult national and local codes.

Attribute: **Flexural Strength** (How hard can you push on it before it breaks)

Procedure: ASTM 473 Method B: 1 in/min

	lbf.	
	Machine Direction	Cross Direction
Gypsum Association Typical	107	36
Drywall-as tested- Paper up	126	62
Drywall-as tested- Paper down	125	62
Go With The Curve Panel - Paper up	181	151
Go With The Curve Panel - Paper down	150	129

Comment – Curve panels have the same stiffness as drywall in the machine

Metric: **Effective Stiffness** (Panel Deflection on a per unit area basis)

	lb.in ² /in width	
	Machine Direction	Cross Direction
Gypsum Association Typical	1500 to 4000	1500 to 4000
Drywall-as tested	2700	2000
Go With The Curve Panel	2700	1800

Metric: **Modulus of Rupture** (Minimum Rupture on a per unit area basis)

	psi	
	Machine Direction	Cross Direction
Gypsum Association Typical	750	260
Drywall-as tested	809	428
Go With The Curve Panel	969	845

Comment – Curve panels have higher Modulus of Rupture (bending strength) independent of test direction

Comment – Curve panels exhibit significantly higher bending strength than drywall independent of direction or which way up they were tested. Also the failure mode is significantly different. Drywall fails catastrophically, breaking into two pieces; Curve panels fail by creasing but do not break into pieces.

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Attribute: **Nail Pull Resistance**

Procedure: ASTM 473 Method B

	lbf
Gypsum Association Typical	77
½" Drywall – as tested	65
Go With The Curve- Panel	66

Comment – Curve panels have the same nail pull resistance as drywall. Note it is not recommended to utilize nails, all curve panels should be installed with drywall screws.

Attribute: **Water Absorption** (What happens when the panel is submerged in water)

Procedure: ASTM C 473 (Two (2) hour Immersion)

	% weight increase
Gypsum Association Typical	10
½" Drywall- as tested	32
Go With The Curve Panel	14

Comment – Curve panels show lower moisture absorption than drywall panels

Attribute: **Surface Water Resistance** (What happens when the surface gets wet)

Procedure: ASTM 473 (5"x5" test pieces with water on face only, for Two (2) hours)

	% weight increase
Gypsum Association Typical	NA
½" Drywall- as tested	14
Go With The Curve Panel	5

Comment – Curve panels show lower moisture absorption than drywall panels

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Attribute: **Puncture Resistance** (Evaluate susceptibility to incidental impact damage)

Procedure: Push 1/8" Diameter cylinder into finished surface until puncture occurs

	lbf
Gypsum Association Typical	NA
½" Drywall- as tested	21
Go With The Curve Panel	35

Comment – this is an internal test only, devised based on customer requests to understand the comparative resistance to ‘dings’ in use after installation. The test measures the force for a 1/8" blunt end ‘nail’ to puncture the surface of the test piece. Curve panels show greater puncture resistance than drywall.

Attribute: **Weight**

	(lb/sqft)	Weight 4x8 ft. Sheet
Gypsum Association Typical	2.0	64 lbs.
½" Drywall – as tested	1.36	43.5 lbs.
Go With The Curve Panel (1/2")	0.46	14 lbs.

Comment – Curve panels are significantly lighter than any form of drywall

Attribute: **Thermal Insulation**

	R Value
Go With The Curve Panel ½"	2.5
Go With The Curve Panel 5/8"	3.125

Comment: Determined based upon specified performance of subcomponents

Fire Performance

Curve panels are sandwich panels consisting of a foam core with resin impregnated fiberboard skins. Both the core and skin materials have a Class A rating according to ASTM E84 per Manufacturers Testing, Data available upon request. The complete panels have not been tested to ASTM E84. It is the responsibility of the architect to determine suitability in a given application.

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