

GO WITH THE CURVE!

Curve - Corners for Drywall

- Description** Interior curved wall and ceiling panels for installation with drywall.
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.
- Limitations**
1. Avoid exposure to temperatures exceeding 110 (degrees) F.
 2. Avoid direct exposure to moisture before, during and after installation.
 3. Do not stack anything on top of panels during storage.
- Installation and Finishing**
1. For use with conventional wood or metal stud framing. Panels typically have a 2 1/4" 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.

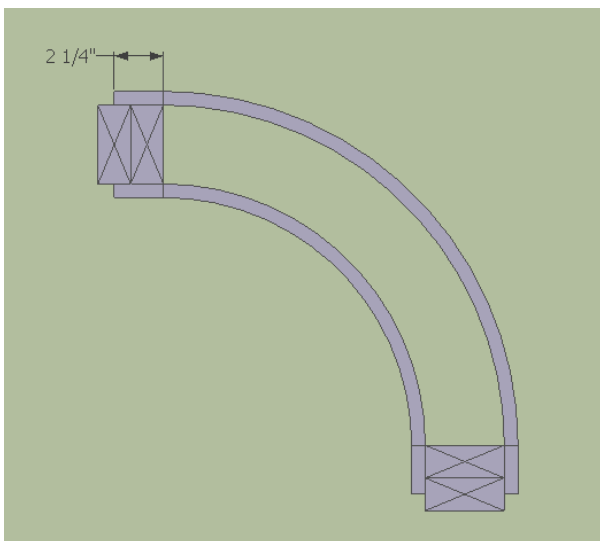


Fig 1. Typical stud layout for vertical corners

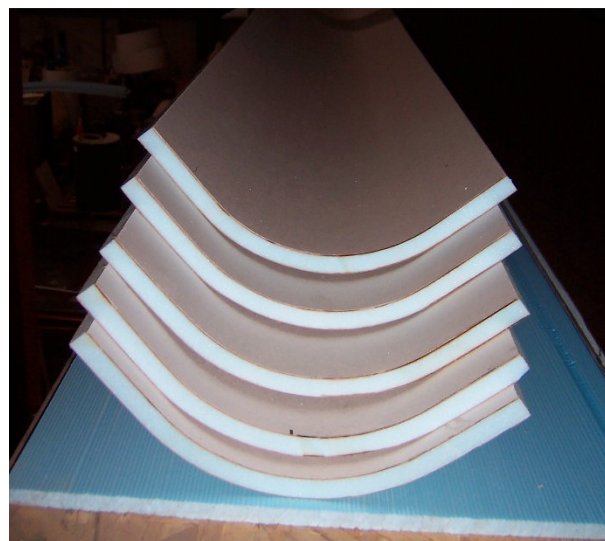


Fig 2. Typical 90 degree panels

Sizes, Shapes and Applications

Length – 8’ or 10’. Custom lengths upon request
 Thickness – 1/2” or 5/8”. Custom thickness upon request

	Available radii	Configuration	Uses	Comments
90 degree angle	2” – 24”	My 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

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.
- All raw materials are 100% US sourced. All manufacturing is carried out in Midland, MI.
- 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 1/2” drywall tested back to back with Curve 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.

Structural Properties

Flexural Strength ASTM 473 Method B (1in/min)		
Type of Board	lbf	
	Machine Direction	Cross Direction
Gypsum Association Typical	107	36
Tested on drywall Paper up	126	62
Tested on Drywall Paper down	125	62
Curve Paper up	181	151
Curve Paper down	150	129

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.

Effective Stiffness (EI)		
	lb.in ² /in width	
	Machine Direction	Cross Direction
Gypsum Association Typical	1500 to 4000	1500 to 4000
Tested on drywall	2700	2000
Curve	2700	1800

Comment - Curve panels have the same stiffness as drywall in the machine direction and slightly lower stiffness in the cross direction.

Modulus of Rupture – minimums (from flexural strengths above)		
	psi	
	Machine Direction	Cross Direction
Gypsum Association Typical	750	260
Tested on drywall	809	428
Curve	969	845

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

Nail Pull Resistance (ASTM C 473 method B)	
	lbf
Gypsum Association Typical	77
Tested on ½" drywall	65
Curve	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.

Puncture Resistance	
	lbf
Gypsum Association Typical	NA
Tested on ½" drywall	21
Curve	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.

Water Absorbion ASTM C 473 (two hours immersion)	
	% weight increase
Gypsum Association Typical	10
Tested on 1/2" drywall	32
Curve	14

Comment – Curve panels show lower moisture uptake than drywall panels.

Surface Water Resistance ASTM 473 (5"x5" specimens with water over face only for two hours)	
	% weight increase
Gypsum Association Typical	NA
Tested on 1/2" drywall	14
Curve	5

Comment – Curve panels show lower moisture uptake than drywall panels.

Weight per unit Area	
	(lb/sqft)
Gypsum Association Typical	2.0
Tested on 1/2" Drywall	1.36
Curve	0.46

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

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. The complete panels have not been tested to ASTM E84. It is the responsibility of the architect to determine suitability in a given application.

Thermal Insulation

The foam core of Curve panels has an insulation value of R5/in.

Properties

Insulation value of 1/2" panels R 2.5.
Insulation value of 5/8" panels R 3.125.

Acoustic Properties

Curve panels do not offer significant sound absorption or sound deadening properties. Their curved shape can be valuable in acoustic tuning, for example in breaking up second reflections in home theaters and music rooms.

Product Information

See www.gowiththecurve.com for the most up to date product information.

Trademarks

The following trademarks used herein are owned by Fulcrum Composites, Inc:
Go With The Curve
Curve – Corners for Drywall

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Safety First

Follow good safety/industrial hygiene practices during installation. Wear protective equipment appropriate to the situation

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