



# GYPSUM ASSOCIATION

6525 Belcrest Road, Suite 480, Hyattsville MD 20782

## APPLICATION OF GYPSUM BOARD TO FORM CURVED SURFACES (GA-226-08)

Gypsum board may be used to form almost any cylindrically curved surface. To prevent flat spots on the curved surface, framing members shall be spaced closer

Table 1 – Bending Radii for Dry Gypsum Board

Gypsum Board Thickness	Bent Lengthwise	Bent Widthwise
1/4 in. (6.4 mm)	5 ft. (1500 mm) †	15 ft. (4600 mm) †
5/16 in. (7.9 mm)	6-1/4 ft. (1900 mm)	20 ft. (6100 mm)
3/8 in. (9.5 mm)	7-1/2 ft. (2300 mm)	25 ft. (7600 mm)
1/2 in. (12.7 mm)	10 ft. (3000 mm) †	‡
5/8 in. (15.9 mm)	15 ft. (4600 mm)	‡

† Two 1/4 in. (6.4 mm) pieces bent successively may be used to obtain a final 1/2 in. (12.7 mm) thickness at the shorter bending radius.

‡ Shall not be permitted to be bent widthwise while dry.

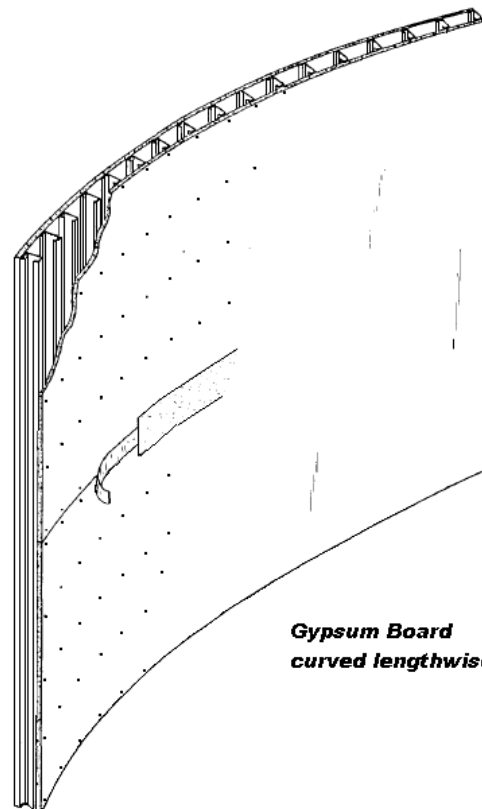
together than required for typical flat wall or ceiling surfaces. For minimum radius bends, framing spacing shall be not greater than 6 in. (150 mm) on center. Gypsum board shall be mechanically attached to framing using nails or screws.

### DRY BENDING

Bending radii for dry gypsum board shall be not less than those given in Table 1.

### WET BENDING

Gypsum board shall be permitted to be bent to radii shorter than those in Table 1 if the face and back papers and core are thoroughly moistened as described below. Wet gypsum board is easily damaged and shall be handled with care.



Gypsum Board curved lengthwise

Moistening: Evenly spray water on the surface which will be in tension when the board is hung such that the water is allowed to soak into the core before application. The board must be dried within 24 hours of wetting to prevent the development of mold. Fans and mechanical dehumidification should be used to accelerate drying when conditions are not conducive to natural drying. When the gypsum board dries thoroughly, its original hardness is regained.

## GENERAL

### Application of Gypsum Board to Form Concave Surfaces

A stop shall be applied at one end of the curve to restrain one end or edge of the gypsum board during installation. Pressure shall be applied to the unrestrained end or edge of the gypsum board forcing the field of the gypsum board into firm contact with the framing. Gypsum board shall be fastened by working from the "stopped" end or edge. The gypsum board shall be held tightly against the framing while fasteners are being driven.

### Application of Gypsum Board to Form Convex Surfaces

One end of the gypsum board shall be attached to the framing with nails or screws. The gypsum board shall be progressively pushed into contact with and fastened to subsequent framing members, working from the fixed end to the free end. The gypsum board shall be held tightly against each framing member while fasteners are being driven.

## ARCHWAYS

Gypsum board may be applied to the inner face of almost any archway. For short radii the gypsum board shall either be moistened or have the back paper scored across the width with parallel score marks spaced approximately 1 in. (25 mm) on center with the core broken at each cut. The gypsum board shall be held tightly against the supporting framing while fasteners are being driven.

## FINISHING

When joint treatment is specified at corners of arches or other curved surfaces, one edge of the joint tape shall be snipped from the edge of the tape to the center of the tape at approximately 3/4 in. (20 mm) intervals. The uncut half of the tape shall be applied to the curved surface and the cut half to the flat surface.

Where corner bead is used, one leg of the corner bead shall be snipped at approximately 3/4 in. (20 mm) intervals. The uncut leg of the corner bead shall be applied to the curved surface and the cut leg to the flat surface.

Joints, fasteners, and accessories shall be finished in the normal manner.

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