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DEPARTMENT OF COMMERCE  
BUREAU OF STANDARDS  
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UNITED STATES GOVERNMENT MASTER SPECIFICATION FOR  
GYPSUM WALL BOARD

FEDERAL SPECIFICATIONS BOARD SPECIFICATION No. 284

This specification was officially promulgated by the Federal Specifications Board on March 28, 1925, for the use of the Departments and Independent Establishments of the Government in the purchase of gypsum wall board.

CONTENTS

	Page
I. Types.....	1
II. Material and workmanship.....	2
III. General requirements.....	2
1. Dimension tolerances.....	2
(a) Thickness.....	2
(b) Width.....	2
(c) Length.....	2
2. Weight.....	2
3. Strength.....	2
4. Bond.....	2
IV. Detail requirements.....	2
V. Method of inspection and test.....	3
1. Sampling.....	3
2. Strength test.....	3
VI. Packing and marking.....	3
VII. Additional information.....	3
VIII. General specifications.....	3

I. TYPES

This specification covers two types of gypsum wall board: A. Boards with square edges, designed for butted joints. B. Boards with rounded edges, designed for filled joints.

## II. MATERIAL AND WORKMANSHIP

Gypsum wall board consists of set gypsum plaster, with or without fiber, reinforced on the surfaces with sheets of fibrous material.

Gypsum wall boards are  $\frac{3}{8}$  inch thick.

Type A boards are 4 feet wide; type B boards are 3 feet  $11\frac{3}{4}$  inches wide.

Gypsum wall boards may be had in any length from 4 to 12 feet, as specified by the purchaser.

That surface of the gypsum wall board designed to be exposed on erection shall be true and free from imperfections that would render the wall boards unfit for use, with or without decorations. The edges and ends shall be straight and solid. Boards of type A shall have corners square and opposite edges parallel. For boards of type B, a negative variation of  $\frac{1}{8}$  inch from parallelism of opposite edges is permissible.

## III. GENERAL REQUIREMENTS

### 1. DIMENSION TOLERANCES

- (a) THICKNESS.—A tolerance of  $\pm 1/32$  inch is permissible.
- (b) WIDTH.—A tolerance of  $-3/32$  inch is permissible.
- (c) LENGTH.—A tolerance of  $\pm 3/8$  inch is permissible.

### 2. WEIGHT

Gypsum wall board shall weigh not less than 1,500 pounds nor more than 2,000 pounds per 1,000 square feet.

### 3. STRENGTH

When the load is applied through a knife-edge parallel to the fibers in the surfacing material, gypsum wall board shall withstand a pressure of at least 32 pounds; when the knife-edge is at right angles to the fibers, the breaking load shall be at least 60 pounds.

### 4. BOND

With loads equal to or less than those specified in Section III, 3, there shall be no breaking of the bond between the fibrous surfacing material and the plaster core.

## IV. DETAIL REQUIREMENTS

No details specified.

## V. METHOD OF INSPECTION AND TEST

### 1. SAMPLING

One per cent of the number of boards in a shipment, but not less than 10 boards, shall be so selected as to be representative of the shipment. Twenty-five per cent of such selected boards, but not less than 10 boards, shall constitute a sample. A strip 2 feet long by the width of the board shall be cut from one end of each of the 10 or more boards in the sample and forwarded to the laboratory for test.

### 2. STRENGTH TEST

Two specimens, each 12 by 18 inches, shall be cut from each board in the sample, one having the 18-inch dimension parallel to the fibers in the surfacing material, and the other at right angles to them. Each specimen is placed on two parallel knife-edges 16 inches apart and loaded at midspan through a third knife-edge parallel to the other two. The breaking load is noted, and the bond, as defined under Section III, 4, is observed. The average strength of the 10 specimens cut from the boards in each direction is computed and compared with the respective requirements in Section III, 3.

## VI. PACKING AND MARKING

Gypsum wall board shall be packed in such a way as to be kept reasonably dry.

Gypsum wall board shall be stamped on each board with the name of the manufacturer and the brand, if any.

## VII. ADDITIONAL INFORMATION

Gypsum wall boards 1/4 inch or 1/2 inch thick may be had for special purposes.

## VIII. GENERAL SPECIFICATIONS

No details specified.

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