

# DIRECTOR'S INTERPRETATION

# STANDATA

December 1991 90-DI-009  
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## GYPSUM BOARD USED TO ACHIEVE A FIRE-RESISTANCE RATING FOR FIRE SEPARATIONS

### Type X Gypsum Board

A material designated as "Type X gypsum board" is referred to in Chapter 2, "Fire Performance Ratings" of the Supplement to the National Building Code of Canada 1990 and in Tables A-9.10.3.A. and A-9.10.3.B. of the Alberta Building Code 1990. These documents indicate that Type X gypsum board is described in CSA A82.27-M1977, "Gypsum Board Products".

CSA A82.27-M1977 states that these gypsum boards must be tested in accordance with ULC Standard S101 or ASTM Standard E119. To be acceptable a designated fire-resistance rating must be achieved when a single layer is applied to each face of a load-bearing wall incorporating wood framing members. Using 15.9 mm thick boards a 1 hour fire-resistance rating must be achieved, and using 12.7 mm thick boards a 45 minute fire-resistance rating must be achieved.

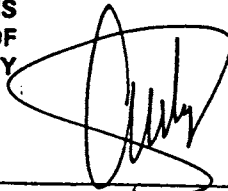
In the absence of a formal testing and labelling procedure, boards listed by Underwriters' Laboratories of Canada for use in assembly Design No. W301 are accepted as 15.9 mm Type X gypsum board, and boards listed for use in assembly Design No. W302 are accepted as 12.7 mm Type X gypsum board. The boards must bear ULC labels identifying that they are listed for the appropriate assembly.

Gypsum boards currently available in Canada that are accepted as "Type X" in Alberta include the following:

### 12.7 mm Type X Gypsum Board

ISSUE OF THIS INTERPRETATION IS  
AUTHORIZED UNDER ARTICLE 1.5.9.1. OF  
THE ALBERTA BUILDING CODE 1990 BY  
THE DIRECTOR, BUILDING STANDARDS

C.M. TYE



Safety Standards Branch

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LABOUR

Work and Safety Division

Atlantic Gypsum Limited - High Fire Resistant  
Canadian Gypsum Company Limited - Sheetrock Firecode C  
Canadian Gypsum Company Limited - Sheetrock SW  
Firecode C  
Canadian Gypsum Company Limited - Grand Prix Plasterbase  
-type X2  
Domtar Construction Materials - Type Gyproc Fireguard C  
Genstar Gypsum Limited - Type TRFP-3  
Georgia-Pacific Corporation - Type GPFS-1  
- Type GPFS-3  
Westroc Industries Limited - Firestop C  
- Aquaguard Firestop C

#### 15.9 mm Type X Gypsum Board

Atlantic Gypsum Limited - High Fire Resistant  
Canadian Gypsum Company Limited - Sheetrock Firecode  
- Sheetrock SW Firecode  
- Baxboard Firecode  
- Sheetrock Firecode -  
Type WR-C  
- Sheetrock SW Firecode  
- Type  
WR-C  
- Grand Prix  
Plasterbase - Type  
X1 & Type X2  
Domtar Construction Materials - Type Gyproc MR Fireguard  
6F2  
- Type Gyproc Fireguard C  
- Type Gyproc Fireguard  
GF6  
Genstar Gypsum Limited - Type TRFP-3  
Georgia-Pacific Corporation - Type GPFS-1

- Type GPFS-2
- Type GPFS-3
- Type GPFS-6

Westroc Industries Limited - Firestop C  
- Firestop  
- Aquaguard Firestop C  
- Aquaguard Firestop

Note: The designer or contractor should check with the gypsum board manufacturer to find out which is the appropriate board to use in a specific situation.

#### Installation of Gypsum Board

Most wall assemblies incorporating gypsum board sheets for the exposed membranes have been tested and evaluated with the sheets having their long dimension placed vertically and with all edges backed by framing members. Unless specific test results or listings have been published to indicate that other installation methods are satisfactory all gypsum board for partitions and loadbearing walls that require a fire-resistance rating in excess of 1 hour shall be installed with the long dimension placed vertically and with all edges backed by and fastened to framing members.

Except for tested and listed assemblies evaluated with horizontal placement, horizontal placement of gypsum board is permitted only for partitions and loadbearing walls that do not require a fire-resistance rating in excess of 1 hour as evaluated on the basis of Chapter 2 of the Supplement to the National Building Code of Canada 1985. All edges of the gypsum board panels shall be fastened to framing members or to blocking members whose dimensions are not less than the dimensions of the studs.