

Gold Bond® BRAND Fire-Shield® Gypsum Board

DESCRIPTION

Gold Bond® BRAND Fire-Shield® Gypsum Board was developed to work in combination with other products in an assembly to retard heat transfer through the assembly. Fire-Shield gypsum boards are made with cores formulated to offer greater fire resistance than regular gypsum board. Generically, these fire resistant boards that are used to delay heat transfer to structural members are designated as "type X" products.

The Gypsum core of Fire-Shield Gypsum Board works as a natural "sprinkler system." Gypsum naturally contains about 21 percent water. When the board is heated, the water in the core begins to evaporate and is released as steam, retarding heat transfer. Fire-Shield gypsum board remains noncombustible. However, as shrinkage occurs because of the loss of water volume, cracks occur which permit passage of fire and heat. To lessen this process, Fire-Shield gypsum board is formulated by adding noncombustible fibers to the gypsum to help maintain the integrity of the core as water volume is lost while providing greater resistance to heat transfer.

TECHNICAL DATA

SYSTEM BURNING CHARACTERISTICS

ASTM E84
Flame Spread: 15
Smoke Developed: 0

According to ASTM C 1396, the standard for gypsum board, type X gypsum board must provide at least: a one-hour fire resistance rating for 5/8" board, or a 3/4-hour fire resistance rating for 1/2" board applied in a single layer nailed on each face of load-bearing wood framing members when tested in accordance with the requirements of Methods of Fire Test of Building Constructions and Materials (ASTM designation E 119).

For additional fire protection, Gold Bond Fire-Shield C products are formulated with a mineral core additive which expands when subjected to heat which aids in holding the gypsum board together.

Fire-Shield gypsum boards also can be used as column protection, delaying the rapid transfer of heat to reduce the likelihood that structural members will lose strength and fail to carry the intended load.

FIRE RESISTANCE RATINGS

Fire resistance ratings represent the results of tests on assemblies made up of specific materials in a specific configuration. When selecting construction designs to meet certain fire resistance requirements, caution must be used to insure that each component of the assembly is the one specified in the test. Further, precaution should be taken that assembly procedures are in accordance with those of the tested assembly. (For copies of specific tests, call 1-800-NATIONAL.)

WEIGHTS

1/2" Type C - 1.9 lbs/SF
5/8" Type X - 2.2 lbs/SF
5/8" Type C - 2.2 lbs/SF

For fire safety information, go to www.nationalgypsum.com.

RECOMMENDATIONS

Examine and inspect materials to which gypsum board is to be applied. Remedy all defects prior to installation of drywall. Any defects in the finished installation due to misaligned framing or other cause will be the responsibility of the work performed under that section of the specification and such defects shall be remedied under that section of the specification.

Gypsum board shall be applied first to ceiling at right angles to framing members, then to walls. Boards of maximum practical length shall be used so that an absolute minimum number of end joints occur. Board edges shall be brought into contact with each other but shall not be forced into place.

SPECIFICATIONS

THE FOLLOWING PARAGRAPHS ARE FOR INSERTION INTO SECTIONS OF GENERIC SPECIFICATIONS OR GENERIC/PROPRIETARY SPECIFICATIONS COVERING GYPSUM BOARD PRODUCTS. THE NATIONAL GYPSUM PRODUCT NAME FOLLOWS THE GENERIC DESCRIPTION IN PARENTHESES.

PART 2 PRODUCTS

2.01 MATERIALS

A. Fire-Resistant Gypsum Board: A gypsum core gypsum board with additives to enhance fire resistance of the core and surfaced with paper on front, back, and long edges and complying with ASTM C 1396, type X.

1. Thickness: 1/2" (Gold Bond BRAND Fire-Shield C Gypsum Board), 5/8" (Gold Bond BRAND Fire-Shield Gypsum Board), or 5/8" (Gold Bond BRAND Fire-Shield C Gypsum Board)
2. Width: 4'
3. Length: 6' through 16'
(1/2" Fire-Shield C Gypsum Board,
5/8" Fire-Shield Gypsum Board)
Length: 8' through 14'
(5/8" Fire-Shield C Gypsum Board)
4. Edges: Square, Tapered, or Beveled Tapered (Sta-Smooth Edge)

PART 3 EXECUTION

3.01 INSTALLATION

A. General: In accordance with the manufacturer's recommendations, National Gypsum Company "Gypsum Construction Guide."

Gypsum board joints at openings shall be located so that no end joint will align with edges of opening unless control joints will be installed at these points. End joints shall be staggered, and joints on opposite sides of a partition shall not occur on the same stud.

Gypsum board shall be held in firm contact with the framing member while fasteners are being driven. Fastening shall proceed from center portion of the board toward the edges and ends. Fasteners shall be set with the heads slightly below the surface of the gypsum board in a dimple formed by the hammer or power screwdriver. Care shall be taken to avoid breaking the face paper of the gypsum board. Improperly driven nails or screws shall be removed.

See page 63, *Environmental Conditions and Limitations*.