



## SA-FIRE BOARD SOUND ATTENUATION

**DELTA® SA-FIRE BOARD** is a semi-rigid, medium density mineral wool acoustical and fire protection insulation. High temperature mineral fibers formed at over 2500°F. are bonded together with a fire retardant binder. DELTA® SA-FIRE BOARD imparts excellent acoustical properties primarily to framed wall assemblies, especially when fire safety is the driving design consideration. DELTA® SA-FIRE BOARD may also be installed between joists in floor/ceiling assemblies with excellent effect. Typical fire/sound rated wall assemblies are listed in the Underwriters Laboratories Fire Resistance Directory and Gypsum Association Fire Resistance Design Manual. DELTA® SA-FIRE BOARD contributes significantly to both fire safety and acoustical performance as illustrated below:

UL Design No. V419: Two Hour Fire 56 STC Sound Noncombustible Non-Load Bearing

Two layers 5/8" gypsum wallboard applied vertically to each side of 2½" metal studs 16" & 24" o.c. with the inner layer attached to studs with 1" Type S drywall screws 8" o.c. to edges and 12" o.c. to intermediate studs and the outer layer laminated to the inner layer and attached to floor & ceiling track 1-5/8" Type S steel screws spaced 12" o.c., 2" or 2½" thick DELTA® SA-FIRE BOARD 3.0 pcf friction fit in stud spaces.

GA File No. WP 1015: One-Hour Fire 55 to 59 STC Sound Noncombustible Non-Load Bearing

Base Layer ¼" gypsum wallboard applied parallel to each side of 2½" metal studs 24" o.c. with 7/8" Type S drywall screws 12" o.c. Face layer 5/8" Type X gypsum wallboard or veneer base applied on each side parallel to studs with 1-5/16" Type S drywall screws 12" o.c. Stagger joints 24" o.c. each layer and side. Sound tested with 1½" thick DELTA® SA-FIRE BOARD in stud space.

UL Design No. V417: One Hour Fire 51 STC Sound Noncombustible Non-Load Bearing

One layer 5/8" gypsum wallboard applied parallel to each side of 3-5/8" metal studs 16" & 24" o.c. max. with 1" Type S drywall screws 8" o.c. to edges and 12" o.c. to intermediate studs, 3" thick DELTA® SA-FIRE BOARD 3.0 pcf friction fit in stud spaces.

Surface Burning Characteristics: plain, no facings  
ASTM E 84 & Underwriters Laboratories UL® 723  
Test Methods - Flame Spread Index = 0  
Smoke Developed Index = 0

"Noncombustible" [UL® attested per ASTM E 136 Test Method]

GA File No. WP 1070: One-Hour Fire 45 to 49 STC Sound Noncombustible Non-Load Bearing

One layer ½" type X gypsum wallboard or veneer base applied parallel to each side of 2½" metal studs 24" o.c. with 1" Type S drywall screws 8" o.c. to edges and 12" o.c. to intermediate studs, 2" thick DELTA® SA-FIRE BOARD 3.0 pcf friction fit in stud spaces. Also fire tested with 1½" thick DELTA® SA-FIRE BOARD stapled to wallboard in stud spaces. Stagger joints 24" o.c. each side.

UL Design No 305: One-Hour Fire 38 STC Sound Load Bearing

One layer 5/8" gypsum wallboard applied horizontal or vertically to each side of a nom. 2" by 4" wood studs, 16" o.c., nailed with 6d cement coated nails 1-7/8" long, 7" o.c. to wood studs, 3" thick DELTA® SA-FIRE BOARD 3.0 pcf in stud spaces.

Application: DELTA® SA-FIRE BOARD is generally applied in a friction-fit manner between metal or wood framing components. Under certain types of construction, positive attachment may be advisable. Achieving specified acoustical performance requires caulking and sealing the gypsum wallboard perimeter joints of sound rated wall assemblies.

Standard Sizes and Thickness: Length = 48" Widths = 16" and 24"

Thickness(s) unfaced, standard = 1½", 2", and 3"  
Thickness(s) with FSP vapor retarder = 2" and 3"  
Other sizes, thickness, & densities are available on special order.

### Specification Compliance:

U.S. Federal Specification HH-I-521F, Type I  
U.S. Federal Specification HH-I-558B and C  
ASTM C 665-98 and ASTM C 612-00  
Underwriters Laboratories, Inc.® Tested -See UL® Fire Resistance Directory for Classifications

Physical Properties: without Vapor Retarder Facing

Density: Nominal 3 lbs./ft<sup>3</sup> (48 kg./m<sup>3</sup>)  
Thermal Conductivity: ASTM C 518 @75°F.(24°C) mean temp. k = 0.25 (0.036) Btu in./h ft<sup>2</sup> oF.(W/m K)  
Thermal Resistance: ASTM C 518 @75°F.(24°C) mean temp. R = 4.0 per inch  
Moisture vapor sorption, ASTM C 1104 = Less than 0.2%  
Water wicking resistant and Non-hygroscopic.  
Corrosion to Steel, Copper, Aluminum, ASTM C 665 = None  
Does not breed or promote fungi or bacterial growth  
Surface Burning Characteristics:  
ASTM E 84 & Underwriters Laboratories, Inc® UL 723  
Flame Spread Index = 0 Smoke Developed Index = 0  
Noncombustible ... UL® attested per ASTM E 136-95