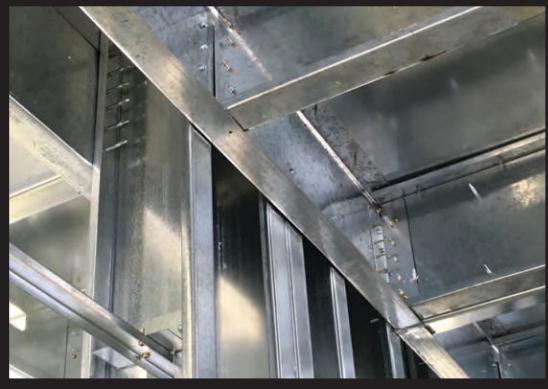




NON-COMBUSTIBLE

SURE-BOARD® SERIES 200S-F/200S-P

FLOOR/ROOF SHEATHING



SURE-BOARD® ...FOR SHEATHING

MARINO WARE®

www.MarinoWARE.com

Improve the quality of your next framing project with *Sure-Board[®]* *Series 200S*

Our revolutionary non-combustible sheathing panels will improve the quality and increase the efficiency during the installation on your next residential or midrise load bearing project.

When you incorporate Sure-Board[®] Series 200S sheathing, the finish product will prevent the need to work over uneven corrugated deck or have to bear the delay of pouring and finishing each level if you have been using a deep pandeck system.

These delays may be eliminated and production increased at no additional cost.

The installation of our series 200S panels do not require any new installation techniques for the field staff. Since the current methods and practices for installation are the same as those used for decades for plywood and OSB panels, we have the huge advantage of eliminating blocking and creating a great non-combustible structure for the future.

The Big One
Scan this QR to view
the Seismic Tests
Conducted at
UCSD's Shake Table



We put our building to the "Real Test" at the world's largest outdoor shake table at UCSD.

The First Revolutionary 6 Story CFS ShakeTable Test

Several industry partners along with H.U.D. and the California Seismic Safety Commission worked together on this program. DCI Engineering and the UCSD Engineering staff performed the first ever shake table test utilizing current code required lateral and diaphragm methods. Sure-Board[®] sheathing demonstrated amazing resilience with no measurable damage. The test program included 13 pretests of increased magnitude to finally reach the MCE or 150% of the 1994 Northridge 6.7 magnitude seismic event. There was no structural damage and this structure was totally intact and ready for use. Imagine if it were a medical facility or one of our children's schools where the occupants must be kept safe at all costs. Sure-Board[®] is the Best Solution.

Sure-Board[®] Series 200S has proven results to make your building better and cost you less.



Sure-Board[®] Series 200S is the non-combustible alternative for any CFS[®] sheathing application both large and small.

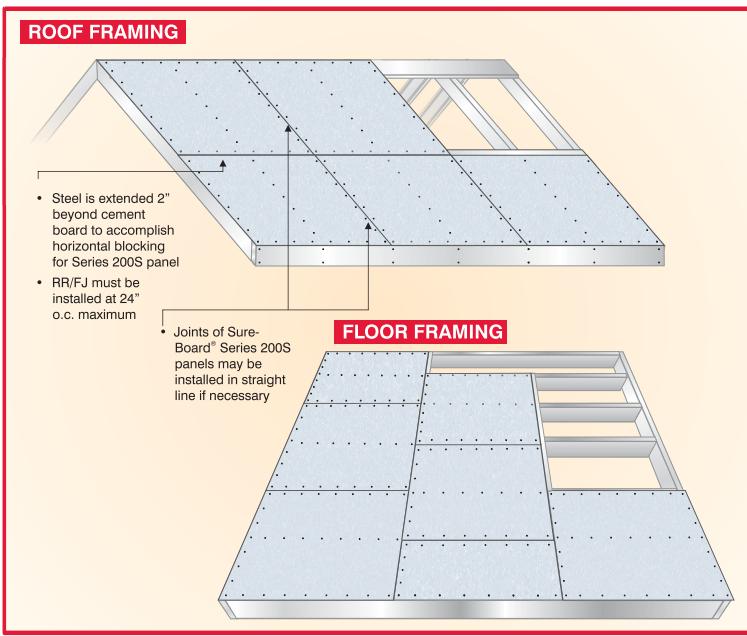


Sure-Board® Series 200S is UL approved for all 1 and 2 hour assemblies with standard C-Joists or JoistRite per UL H503

Sure-Board® Series 200S is Approved Nationwide

Sure-Board® Series 200S is certified using all national building codes. That includes the current IBC, IRC, CBC, DSA, GSA, Army Corp of Engineers, City of New York, City of Los Angeles, LARR 26040 to mention a few. IAPMO UES EC-012 and ER-185 Certify our panels performance through our extensive test program, for use on any CFS project Nationwide.

***Sure-Board® Series 200S is the best investment in non-combustible sheathing for your building.
“OUR STEEL IS THE REAL DEAL.”***



Sure-Board® Series 200S Floor/Roof Cross Sections

Sure-Board® Series 200S

is available Nationwide through thousands of distributors in all 50 states.

About Marino\WARE®

Marino\WARE offers a complete line of cold-formed steel framing products. Our metal framing product line includes: ViperStud® drywall framing studs, structural stud and track, FrameRite® clips and connectors, JoistRite, StudRite, ShaftWall products, plastering steel, and drywall finishing products all under one roof.

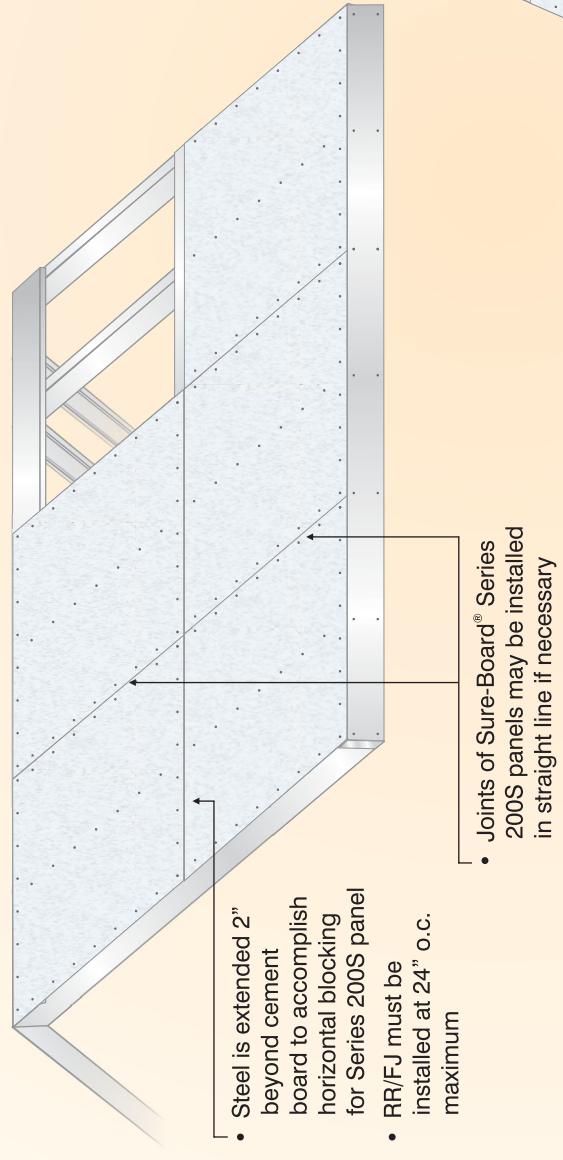
Our four locations (South Plainfield, NJ; Griffin, GA; East Chicago, IN, and Pasadena, TX) are mega-plants – large, self-sufficient facilities with equipment to produce everything we sell. We carry a huge inventory of finished goods so that you can get anything you need without waiting, including custom orders for quick shipment. Our own in-house carrier, Norbet Trucking, ensures that delivery service is never compromised. We also offer in house technical support and shop drawings through Marino\WARE® Design Group.



www.MarinoWARE.com | 800.627.4661

REVOLUTIONARY "SURE-BOARD"® SERIES 200S IS THE NON-COMBUSTIBLE FLOOR/ROOF SHEATHING THAT WILL IMPROVE THE FIRE RESISTANCE OF YOUR BUILDING USING STANDARD CONSTRUCTION METHODS AND PRACTICES.

ROOF FRAMING



SURE-BOARD® Series 200S

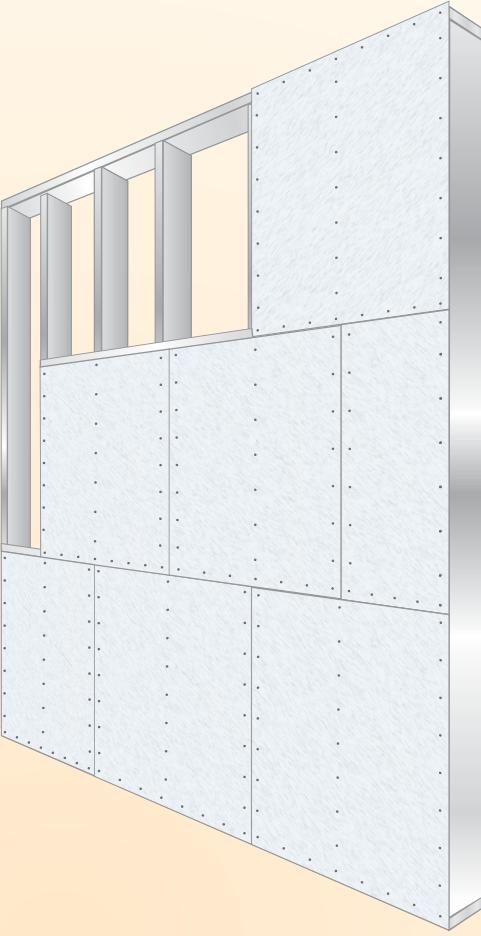
For Floor/Roof Non-Combustible Sheathing

U.S. PATENT #7,770,346
IAPMO ES ER-185 LARR #26040
DSA IR A-5 LA FAB #2109

SAVINGS TO CONTRACTOR:

- Cost for labor and materials is approximately 20% less than any existing non-combustible sheathing currently available today.
- Panel size is 48" x 48" dimension and can be laid in place by one installer.

FLOOR FRAMING



ADDITIONAL CERTIFICATIONS:

SOUND:

- Improves Sound/Impact Results on Typical CFS Framed Assembly.

FIRE:

- UL Listed Fire Rating using Single Layer of 5/8" Type C and RC Channel (1 HR Assembly)
- 2 HR assembly with 2 layers of 5/8" Type C and RC Channel
- Conventional Steel Joists or JoistRite
- See UL H503 for complete assembly instructions



MARINO WARE®

SURE-BOARD® SERIES 200S NON-COMBUSTIBLE SHEATHING WILL IMPROVE THE PERFORMANCE OF YOUR CFS STRUCTURE, WHILE REDUCING THE CONSTRUCTION COSTS TO YOU.
SURE-BOARD® IS A CLEAR WINNER.

ALL TABLES INCLUDE ASD DESIGN LOAD CAPACITIES FOR USE WITH ALL ACCEPTED VERSIONS OF THE 2010 AISI LATERAL STANDARDS / 2015 IBC / 2013 CBC / AND THE ASCE/SEI 7-10 CODES

SURE-BOARD®
Series 200S Sheathing

►STEEL►
SURE-BOARD®
Series 200S Sheathing

IAPMO ES ER-185
LARR #26040
DSA IR A-5

TABLE 1
NOMINAL DESIGN STRENGTHS FOR SURE-BOARD® SERIES 200S STRUCTURAL PANELS
- FLOOR AND ROOF SHEATHING CONTINUOUS OVER TWO OR MORE SPANS

Span Rating, (inches) (o.c.)	Nominal Strength (PSF)	Allowable Strength (ASD) (psf)	Factored Resistance (LRFD) (psf)	Allowable Concentrated Load, LBF
24 maximum	435	215	260	2,000

For **SI:** 1 inch = 25.4 mm, 1 psf = 47.88 Pa, 1 lbf = 4.448 N

1 Maximum allowable strength for panels supported at 24 inches on center is 100 PSF for a deflection limit of L/360. Panels are capable of supporting an allowable concentrated load of 2,000 lbs. within the deflection limit of L/360 on properly designed and constructed framing members.

2 Series 200S panels installed for floors shall include minimum No. 20 gauge (0.033 inch) thick steel sheets. Series 200S panels installed for roofs shall include minimum No. 20 gauge (0.033 inch) thick steel sheets.

SURE-BOARD®
Series 200S Sheathing

►STEEL►
SURE-BOARD®
Series 200S Sheathing

IAPMO ES ER-185
LARR #26040
DSA IR A-5

TABLE 2
NOMINAL SHEAR STRENGTH FOR BLOCKED HORIZONTAL DIAPHRAGMS, LBS/FT
SURE-BOARD® SERIES 200S STRUCTURAL PANELS

Screw Spacing, Inches	Nominal Strength, (Rn)	Allowable Strength, (ASD)	Factored Resistance (LRFD)
Panel Edge	Field	Seismic	Wind/All Others
2	6	2,770	1,110
3	6	2,730	1,090
4	6	1,980	790
6	6	1,320	530
			660
			790
			860

For **SI:** 1 inch = 25.4 mm, 1 lb/ft = 14.5939 N/mm.

The equation Eq. (1) within the IAPMO Evaluation Report ER-185 shall be used to estimate the mid-span deflection of SURE-BOARD's MgO and fiber-cement simple span diaphragms:

TABLE 3
ALLOWABLE WIND UPLIFT LOADS FOR
SURE-BOARD® SERIES 200S STRUCTURAL PANELS^{1,2}

CFS Specifications	Allowable Wind Uplift, (ASD) (psf)		Allowable Wind Uplift, (ASD) (psf) 16 (inch) (o.c.), Joist Spacing	Screw Size
	24 (inch) (o.c.), Joist Spacing	Screw Size		
Designated Thickness, mill	Design Thickness, In.	F_y ksi	F_u ksi	No. 6
33	0.0346	33	45	30.5
43	0.0451	33	45	39.5
54	0.0566	50	65	63.5
68	0.0713	50	65	63.5
97	0.1017	50	65	63.5
118	0.1242	50	65	63.5

For **SI:** 1 inch = 25.4 mm, 1 lbf = 4.448 N, 1 psf = 47.88 Pa, 1 psi = 6.89 kPa

1 Allowable wind uplift based on screw spacings of 6 inches on center maximum at all panel edges and 12 inches on center maximum in the field/interior of the panels.
2 If field/interior spacing is reduced from 12 inches on center, wind uplift may be proportionally increased.

Sure-Board® Series 200S FLOOR/ROOF Sheathing Information Table

SURE-BOARD® STANDARDS & SPECIFICATIONS:

The Sure-Board® Series 200S Structural Sheathing Panels laminated with water soluble adhesive to 1/2" / 5/8" fiber cement panels listed under ASTM C1325 and others. The steel sheet is 20 gauge (0.033 inch / 0.838 mm) minimum base metal thickness complying with ASTM A653 CS/GRAD 33 minimum, and ASTM A1003/A1003M. The sheets are provided with a G-40 hot dipped galvanized coating conforming to ASTM A924.

SERIES 200S FLOOR SHEATHING:

5/8" Thick Fiber Cement Sheathing is laminated to 20 gauge (0.033 inch / 0.838 mm) steel sheet for use as typical floor sheathing with framing members at 24" o.c. maximum spacing.

SERIES 200S ROOF SHEATHING:

1/2" Thick Fiber Cement Sheathing is laminated to 20 gauge (0.033 inch / 0.838 mm) steel sheet for use as typical roof sheathing with framing members at 24" o.c. maximum spacing. Both floor and roof sheathing are manufactured in 48" x 48" panels for easy installation.

FASTENERS, SPECIFICATIONS:

Fasteners to attach the Sure-Board® Series 200S panels to CFS members are self drilling/self tapping pilot point bugle head screws, #8 x 1 5/8" long winged driller by grabber super drive LOX drive screws or equal. Screws must have cutting nubs under screw head to seat into fiber cement sheathing properly.

DESIGN OF FLOOR/ROOF SYSTEM:

All floor and roof members and the installation of these members are responsibility of EOR and contractors.

Sure-Board®

IAPMO ES ER-185 Series 200S



www.MarinoWare.com



Recommended Tools / Screws and Staples for Installing Sureboard® Series 200 / 200W “for shear” / 200S for Sheathing

Any questions please call Technical Support (866) 545-1545

Always wear Eye Protection when Cutting SURE-BOARD®

Grabber & TyRex Collated Screwgun and Standard Handfed Installation

- A) (14 gage or heavier stud/track)
2500 rpm Model 4025 with CW75F/7525 IT (Grabber) or DS325AC (TyRex) Super Drive Feed Track
- B) (lighter than 14 gage stud/track)
4000 rpm Model 4063 with CW75F/7540 IT (Grabber) or DS325AC (TyRex) Super Drive Feed Track
- C) Standard Screwgun (handfed) using long drill-tip Dart Screws (or equal)

Screws for Collated Screwgun and Handfed Screw Installation

- A) 200 Series (gypsum laminate)
#8 x 1 $\frac{3}{4}$ " Bugle Head screw with long drill tip
Part Number: CM175SDZJBW (Grabber) or 08G200CKLFPS (TyRex) Steel Framing Only
- B) 200W Series (1/8" MDF laminate) Steel Framing Only
#10 x $\frac{3}{4}$ " Panhead screw - self tapping
Part Number: CFP101875LYZ (Grabber) or 10M075CTMFDS (TyRex) Steel Framing Only
- C) 200 Series use Prime Source/Dart hand screw #PP2 #8X2" w/quadrex tip Steel Framing Only
- D) 200S Series (7/16" / 9/16" Fiber Cement laminate) Grabber #8 x 1 $\frac{5}{8}$ " winged driller
Part Number: CHS8158JBWG2 Steel Framing Only
- E) 200W Series (1/8" MDF) Standard #10 x 2 $\frac{1}{4}$ " plywood gun nails Wood Framing Only
- F) 200 Series (Drywall laminate) #8 x 2" "A-point" CS8200JBWYZ (Grabber) Wood Framing Only

Metal Cutting Circular Saws for Cutting Sureboard® Series 200W and 200

(Watch Video Clips on website for reference and demonstration of cutting)

- A) Milwaukee 8" Circular Saw Model #6370-20, Blade only #48-40-4515
- B) Milwaukee 6 $\frac{3}{4}$ " 28 Volt Cordless Model #0740-22, Blade only #48-40-4016
- C) Morse Evolution 180 7 $\frac{1}{4}$ " Saw Blade CSM768TSC 7" carbide blade
- D) Champion RS725 7 $\frac{1}{4}$ " Saw
- E) Standard Skilsaw with Carbide tip blade, 7 $\frac{1}{4}$ " Ferrous metal blade Diablo MDL #D0748F

Lath Stapler and 14 Gage Staples/Nailgun for 200W Wood Framing Only

- A) Paslode Model #4150/38 W14
- B) Staples 7/8" #GSW1478 mfg. by Master Fasteners Inc., (14 Gage Staples)
- C) Standard Pneumatic Nailgun (using 10d smooth plywood nails)



Recommended Tools / Screws / Saws / Blades for Installing Sureboard® Series *200 B / BX / BI for Ballistic / Blast

Any questions please call Technical Support (866) 545-1545

Always wear Eye Protection when Cutting SURE-BOARD®

Definition of Series *200 B / 200 BX / 200 BI Panels

- 1) *200 B – Ballistic panels with 14 gage steel sheet
- 2) *200 BX – Blast (EXTERIOR SIDE) panel with 14 gage steel sheet
- 3) *200 BI – Blast (INTERIOR SIDE) panel with 22 gage steel sheet

Grabber & TyRex/Senco Collated Screwgun and Standard Handfed Installation

- A) (14 gage or heavier framing studs/track)
2500 rpm Model 4025 with CW75F/7525 IT (Grabber) or DS325AC (TyRex/Senco)
Super Drive Feed Track
- B) (lighter than 14 gage framing studs/track)
4000 rpm Model 4063 with CW75F/7540 IT (Grabber) or DS325AC (TyRex/Senco)
Super Drive Feed Track
- C) Standard Screwgun (handfed) using long drill-tip Dart Screws (or equal)

Screws for Collated Screwguns and Handfed Screw Installation

- A) Series *200 B/BI Panels
#8 x 1 3/4" Bugle Head screw with long drill tip Collated Bugle Head Screws
Part Number: CM175SDZJBW (Grabber) or 08G200CKLFPS (TyRex/Senco)
Steel Framing Only
- B) Series *200 BX Panels
#10 x 2" (Grabber), #12 x 2" (Grabber), #14 x 2 3/8" (Simpson), or #12 x 2" (TyRex/Senco)
Collated Bugle Head Screws
Part Number: C10200L3YZE (Grabber), CC12200LYZ (Grabber), TB1460S (Simpson) or
12G200YKLFCX (TyRex/Senco)
- C) Series *200 B/BI Panels use Prime Source/Dart hand screw #PP2 #8X2" w/quadrex tip
Steel Framing Only

Metal Cutting Circular Saws for Cutting Sureboard® Series *200 B/BX/BI

(Watch Video Clips on website for reference and demonstration of cutting)

- A) Milwaukee 8" Circular Saw Model #6370-20, Blade only #48-40-4515
- B) Milwaukee 6 3/4" 28 Volt Cordless Model #0740-22, Blade only #48-40-4016
- C) Morse Evolution 180 7 1/4" Saw Blade CSM768TSC 7" carbide blade
- D) Champion RS725 7 1/4" Saw
- E) Standard Skilsaw with Carbide tip blade, 7 1/4" Ferrous metal blade Diablo MDL #D0748F