MEGABOARD

PRODUCT SUBMITTAL SHEET

THE NON-COMBUSTIBLE STRUCTURAL BUILDING PANEL FOR SUBFLOOR APPLICATIONS

GENERAL

Megaboard is a fibre glass mesh reinforced concrete panel for floor, roof and wall sheathing.

- Strong, durable and very easy to work with regular wood working tools
- Dimensionally stable, factory sealed and T&G on long edges or square edges

Megaboard are mechanically fastened directly to steel or wood framing joists.

Megaboard subfloor floor and roof assemblies are designed to carry gravity and lateral loads. When Megaboard is used as structural subfloor, it can be covered with vinyl tile, ceramic tiles, hardwood or carpets as finished floor.

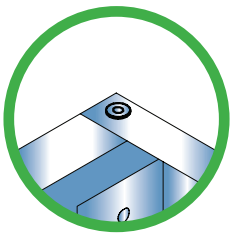
Carbide saw blades are used to cut Megaboard with a circular saw equipped with dust collection system. Wear safety googles, gloves and a NIOSH approved dust mark when cutting Megaboard.

BUILDING CODE APPROVAL

- IAPMO certified and listed, non-combustible for use in all type of non-combustible constructions.
- More than 35 UL/ULC fire-rated assemblies available at 1 hr, 1.5 hrs and 2 hrs
- State of California Approval (Cal-Fire)
- 2021 ,2018, and 2015 International Building Code® (IBC)
- 2021, 2018, and 2015 International Residential Code® (IRC)
- 2019 California Building Code® (CBC) and 2019 California Residential Code® (CRC)
- 2020 Florida Building Code® (FBC), Building and Florida Building Code® (FBC) Residential

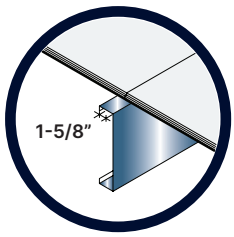
FRAMING INSPECTION SYSTEM

Metal framing must be a minimum of 16 gauge and spaced no greater than 24” (610mm) o.c. when installing a 3/4” thick board. Use low profile fastener on supporting flange, no hex screw on top flange.



Flat head fastener

Hex head fastener



Flange width
min. 1-5/8” wide

STEEL JOIST FRAMING

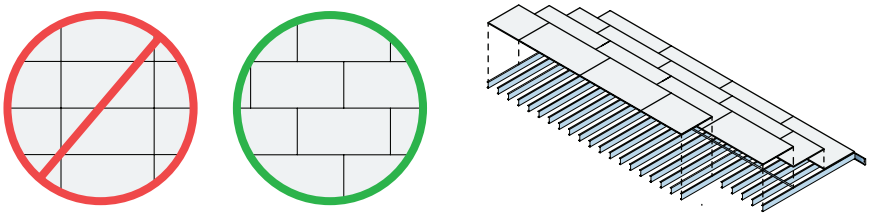
The steel framing must be designed to meet the strength and deflection criteria specified in the contract documents. The panel end must be bearing supporting flange for at least minimum 3/4” wide. Flange width shall be minimum of 1-5/8th.

INSTALLATION

All installations must follow the current Megaboard Installation Specification, using only the listed material and components. For complete updated copy of Megaboard Installation Specification, contact Ectek or a local distributor.

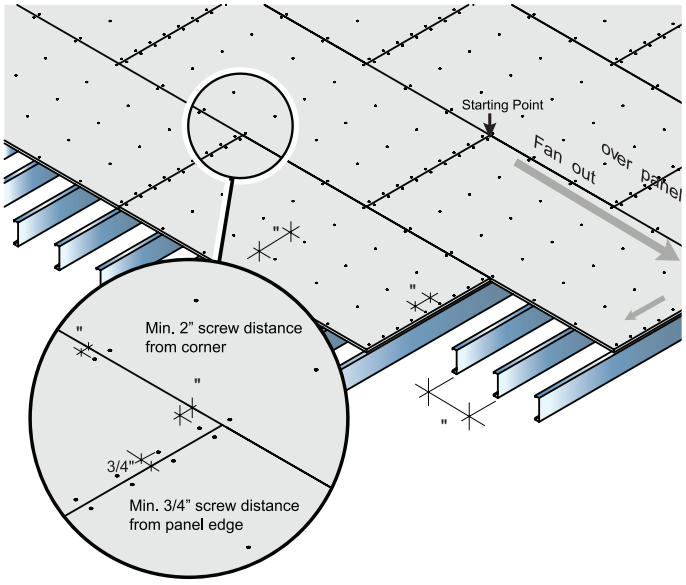
Always install Megaboard panel perpendicular to the joist in running bond pattern so that the end joints fall over the center of the framing members and are staggered.

Panel may be installed with smooth surface against the framing (smooth surface as bottom). Slide panels together so that tongue of panel being installed fits into the groove of the installed panel. Begin fastening at one end of the panel and fan out across the panel. Do not fasten all the corners first. Drive fasteners so the heads are flush with the surface of the board.



SCREW PATTERNS

Screws shall fan out over panel, minimum 3/4” from edge minimum 2” screw disfauce from panel edge.

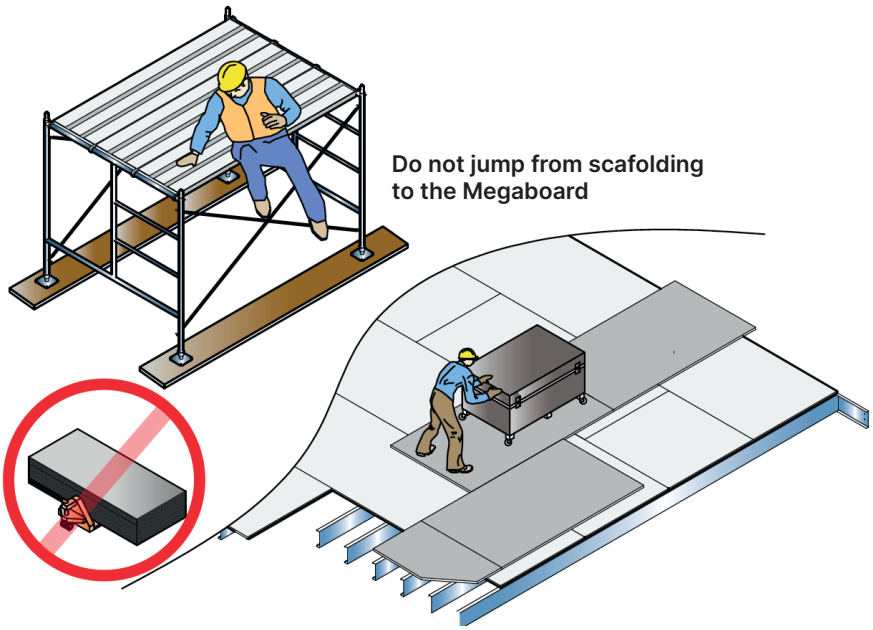


RECOMMENDED FASTENERS

3/4" MegaBoard:	Steel Joist:	Muro	RSM547WFL-GY
		Grabber	CGH8158LG
	(16 ga)	Simpson Strong Tie	F12C200FDB
	Wood Joist:	0.113 HDG RING SHANK NAIL	

JOBSITE PROTECTION

Place additional plywood or Megaboard panels on high-traffic construction pathways for transporting construction equipment. Place load spreader planks perpendicular to joists for scafolding.



TECHNICAL DATA SHEET		
ITEM	TYPICAL VALUES (STANDARD / Tested)	STANDARD / REFERENCE
Bending Strength(Modulus of Rupture), PSI	1305 PSI per ISO 8335 Test Value Ave: 2523 PSI/17.4 Mpa	ASTM C 1185/ISO 8335
Concentrated load on 3/4" (18 mm) board (Dry and Wet)	0.068"(1.6 mm) deflection@400 lb (1.78 KN) static, 0.033"(0.84 mm) deflection@200 lb (0.89 KN) static	ASTM E 661/AC 318*
Disphragm Test -Caltilever	Up to 2,458PLF	ASTM E 455*
Uniform Load on 3/4"(18mm) Board (Dry and Wet)	Average Defelection of 0.021"(dry) and 0.044"(wet) under load of 100 psf, Ultimate load of 330 PSF	ASTM E 330/AC 318*
Fastener Holding (lbf) 3/4"(18 mm) Board	Dry: Lateral/withdrawl(210/20) Test results: (383/294)	ASTM D1761/AC 318*
	Wet: Lateral/withdrawl(160/15) Test results: (375/155)	
Linear Variation With Change In Moisture (from 50% to 90% relative humidity)	1 % (Test result 0.08%)	ASTM C 1185-08 /AC 318*
Saturated Thickness Swelling (24-hour water immersion)	3% (Test result: 0.01%)	ASTM D1037†/AC 318*
Mold Resistance	0/0	ASTM G3273/ASTM G 21
PH Value	10.5-11.5	ISO 8335 Standard*
Density – Oven Dry	≥ 1000 Kg/M3 /62.4 lbs/ft3	ASTM C 1186
Moisture Content (at 65% RH)	6% - 12%	ASTM C 1186 Section 10
Frost Resistance	50 cycles, zero damage	ASTM C 1186 Section 12
Formaldehyde Content	Zero	MSDS
Asbestos Content	Zero	MSDS
Rot & Termite Resistance	Resistant to destruction	Resistant / No Food Value
Surface Burning Characteristics	CLASS A (0 Flame / 0 Smoke)	UL 723/ULC S102
Noncombustibility	Passed ASTM E 136 Section B ASTM E 2652	ASTM E136
UL Listing (over 30 assemblies Listed)	1 hr, 1.5 hrs & 2 hrs UL assembly H509/M524	ASTME 119/UL 723*

* These values are the minimum allowable performance requirements of ASTM C 1186/ISO 8335 standard/AC 318 Criterira)
* Test values are from Certified Test labs.

NOTES:
1) All MEGABOARD installations must be designed and reviewed by a qualified architect or engineer. Panels perpendicular to supports. 3/4" minimum for floors, subject to load table and building code limitations. Refer to installation specifications for additional information on proper use and installation of Megaboard.

2) This technical data sheet replaces all previously published technical data sheets or physical & mechanical property sheets

MegaBoard Packaging Info:3/4"x4'x8' (18mmx1220mmx2440m): Weight 125 lbs/sheet, 3.9 lb/SF, 35 PCs/pallet, 350 pcs/truck

MegaBoard edge finishing: T&G

MegaBoard UL subfloor/Roof Assemblies (Mar /2019)

UL LISTED FLOOR / CEILING ASSEMBLIES:

UL H509 – (1-1/2, 2 hrs) Megaboard directly over C channel Joist.
UL L567 – (1 Hour) 3/4" MegaBoard directly over Marino/WARE JoistRite
UL L580 – (1 Hour) 3/4" MegaBoard directly over Marino/WARE JoistRite
UL L564 – (1 Hour) 3/4" MegaBoard directly over ClarkDietrich TradeReady
UL M511 – (1 Hour) 3/4" MegaBoard over metal deck over iSpan
UL M515 – (1 Hour) 3/4" MegaBoard directly over iSpan
UL L551 – (1 Hour) 3/4" MegaBoard directly over Steel Trusses (Trussteel)
UL L565 – (1 Hour) 3/4" MegaBoard directly over Steel Trusses (mulitple mfrs)
UL L597 – (1 Hour) 3/4" MegaBoard directly over Steel Trusses (mulitple mfrs)
UL M507 – (1 Hour) 3/4" MegaBoard directly over Steel Trusses (multiple mfrs)
UL M513 – (1 Hour) 3/4" MegaBoard directly over Steel Trusses (multiple mfrs)

UL L556 – (1, 1-1/2, 2 Hour) 3/4" MegaBoard directly over Steel C-Joist or Wood
UL L501 – (1 Hour) 3/4" MegaBoard directly over Wood Joist
UL L502 – (1 Hour) 3/4" MegaBoard directly over Wood Joist
UL L505 – (1, 1-1/2, 2 Hour) 3/4" MegaBoard directly over Wood Joist
UL L511 – (1, 1-1/2, 2 Hour) 3/4" MegaBoard directly over Wood Joist
UL M502 – (1 Hour) 3/4" MegaBoard directly over Wood TJI (System 8)
UL M506 – (1 Hour) 3/4" MegaBoard directly over Wood TJI (System 8)
UL L521 – (1 Hour) 3/4" MegaBoard directly over Wood Trusses
UL L550 – (1 Hour) 3/4" MegaBoard directly over Wood Trusses
UL L563 – (1 Hour) 3/4" MegaBoard directly over Wood Trusses
UL M501 – (1 Hour) 3/4" MegaBoard directly over Wood Trusses
UL M503 – (1 Hour) 3/4" MegaBoard directly over Wood Trusses
UL M508 – (1 Hour) 3/4" MegaBoard directly over Wood Trusses

UL Roof Assemblies:

UL P55 – (1 Hour) 3/4" MegaBoard roof sheathing over metal trusses (no deck)
UL P523 – (1 & 1-1/2 Hour) 3/4" MegaBoard roof sheathing over metal trusses
UL P526 – (1 & 1-1/2 Hour) 3/4" MegaBoard roof sheathing over metal trusses
UL P557 – (1 Hour) 3/4" MegaBoard roof sheathing over metal trusses

HANDING AND STORAGE

Care must be taken when placing pallets of Megaboard. Pallets must be placed over a structural support beneath the joists (load-bearing wall or beam) when loading pallets or panels on open framing or completed assemblies. Stack full pallets no more than 4 units high.

Avoid keeping unit in freezing temperatures. Freezing may result in panels sticking together. Allow panels to thaw naturally if frozen, brought the unit to a place where temperature above 32°F (0°C) to allow the ice to melt naturally. Salt or de-icing agents should not be used at any time. Covering the units completely with tarps or similar coverings is an easy way to avoid panels from freezing together.

FLOOR FINISHES:

When Megaboard panels are properly installed and tightened to the steel or wood framing, gypcrete toping maybe applied is achieve better STC rating.

Follow Floor finish manufacturer's recommendtions for the applica on of finished flooring.

LIMITATION:

Backer is only required for tile. For all other flooring, a 'underlayment' is recommended.

SUBMITTAL APPROVALS

Project Name: _____

Contractor: _____

Date: _____