

SAFEBOARD™ Product Manual 2023

Revision A, 09/19/2023



THE PROFESSIONAL'S CHOICE

1 Contents

1	Contents	2
2	Revision History	4
3	General	5
3.1	SAFEBOARD™ Products.....	5
3.1.1	SAFEBOARD™ OSP (Overhang Support Panel)	5
3.1.2	SAFEBOARD™ Wave Tech™ OSP	6
3.1.3	SAFEBOARD™ AIA (Aluminum Installation Assist).....	7
3.1.4	SAFEBOARD™ FMA (Foam Manufacturing Assist)	8
3.1.5	SAFEBOARD™ FIA (Foam Installation Assist).....	10
3.1.6	SAFEBOARD™ Roughtop	11
3.1.7	SAFEBOARD™ Screws	12
3.1.7.1	SAFEBOARD™ OSP Screws.....	12
3.1.7.2	SAFEBOARD™ Roughtop Screws	12
3.1.8	SAFEBOARD™ Edge Caps.....	13
3.1.9	SAFEBOARD™ Hybrid Adhesive	14
3.1.10	SAFEBOARD™ Seam Tape.....	15
3.2	SAFEBOARD™ Technology	16
3.2.1	SAFEBOARD™ Wave Tech™	16
3.2.2	SAFEBOARD™ Quick Stick.....	18
3.3	Safety Guidelines	19
4	Applications	20
4.1	Designers and Architects	20

4.2	Homeowners	22
4.3	Fabricators.....	23
5	Technical	25
5.1	SAFEBOARD™ Products Technical Data	25
5.2	Basic Product Specifications	26
5.3	Cutting Recommendations	27
5.3.1	SAFEBOARD™ Panel Cutting Recommendations	27
5.3.2	SAFEBOARD™ Wave Tech™ Cutting Recommendations	27
5.4	Adhesive Guidelines	29
5.4.1	Natural and Engineered Stone Slabs	29
5.4.2	Sintered Stone and Ceramic Slabs	29
5.5	Installation Guidelines and Drawings.....	30
5.5.1	Installation Guidelines – SAFEBOARD™ Sub-top	30
5.5.2	Installation Guidelines – SAFEBOARD™ Wave Tech™ with Epoxy Adhesive.....	32
5.5.3	Installation Guidelines – SAFEBOARD™ FMA.....	36
5.5.4	Vertical Installation Recommendations.....	40
5.5.4.1	SAFEBOARD™ FMA or FIA-Reinforced Slabs	40
5.6	General Guidelines, Warnings, Disclaimers	41
6	Certified and Approved Brands	42
7	Contact and Social	43

2 Revision History

Revision	Date	Revision Notes
A	09/19/2023	Initial release.

3 General

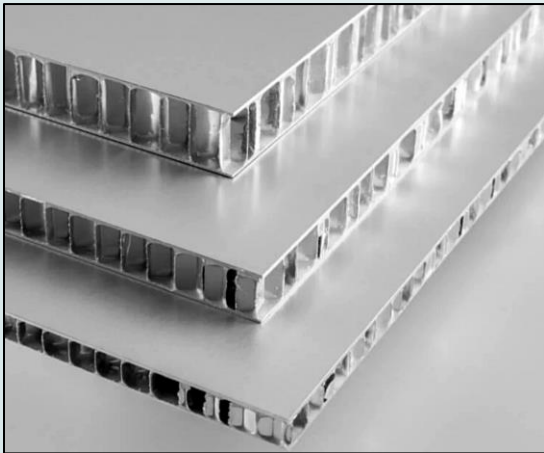
3.1 SAFEBOARD™ Products

3.1.1 SAFEBOARD™ OSP (Overhang Support Panel)

SAFEBOARD™ OSP is an aluminum honeycomb panel used as a structural countertop sub-top. It is utilized in the stone and tile industry as a safe, formaldehyde-free, and sturdy alternative to plywood. The lightweight SAFEBOARD™ OSP sub-top is commonly used for kitchen, bathroom, and outdoor countertops. It is preferable for overhang countertops, since it eliminates the need for corbels and the time-consuming need to engineer plywood with metal rods. Made entirely of high-strength aluminum, a strategically engineered honeycomb core is bonded between two rigid skins to create exceptional strength and rigidity.

SAFEBOARD™ OSP comes in different sizes and thicknesses:

- 5/8" SAFEBOARD™ OSP is rated for 12" – 16" overhangs.
- 1/4" SAFEBOARD™ OSP is rated for 8" – 10" overhangs.
- 7/8" SAFEBOARD™ OSP is rated for 19" overhangs. This thickness is ADA compliant.



3.1.2 SAFEBOARD™ Wave Tech™ OSP

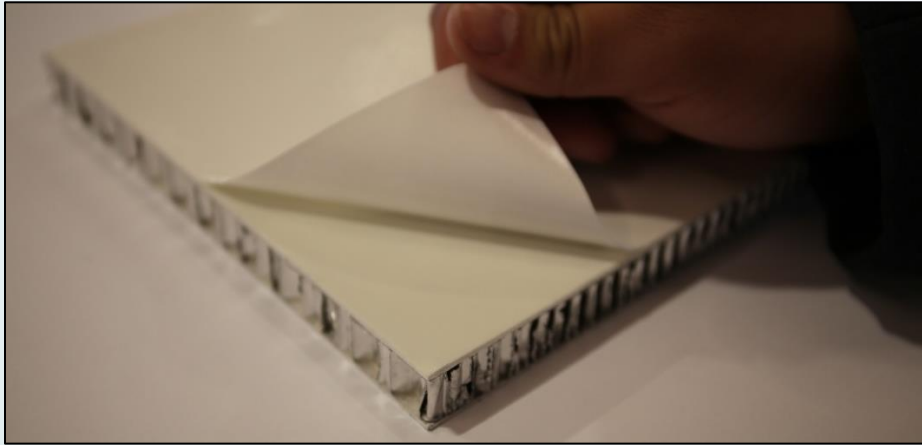


SAFEBOARD™ OSP (Overhang Support Panel) comes in Wave Tech™ configuration. Wave Tech™ is a system comprised of a set of SAFEBOARD™ panels with specially engineered “wave cut” edges, which reinforce thin-bodied porcelain, sintered stone, and ultra-compact surfaces.

SAFEBOARD™ Wave Tech™ OSP is a set of our OSP panels that reinforce and support slabs through the entire shipping, handling, fabrication, and installation process. Wave Tech™ OSP is applied to your slab prior to fabrication and is then permanently bonded. It provides structural support for your slab and can be installed directly onto a countertop with an overhang, with or without a sub-top.

Wave Tech™ OSP is applied to your slab with a two-part epoxy. Once applied, your slab will make it through even the toughest fabrication and installation processes.

3.1.3 SAFEBOARD™ AIA (Aluminum Installation Assist)



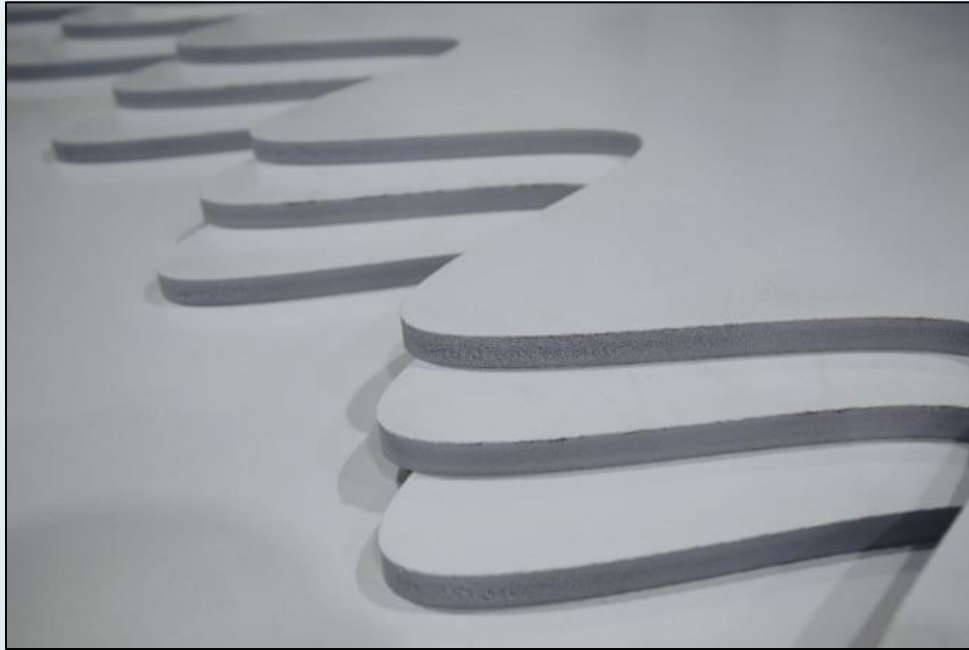
Tired of losing thousands of dollars of material due to simple mistakes during installation? Don't want to spend all the time and money taking every precaution to not break slabs during installation? SAFEBOARD™ AIA (Aluminum Installation Assist) is an aluminum honeycomb panel with pre-applied Quick Stick adhesive to be installed onto fabricated slab pieces prior to installation. SAFEBOARD™ AIA provides your fabricated slab pieces with:

- Support & Rigidity
- Shock Absorption
- An extra layer of protection

Once fabricated slab pieces have been reinforced with SAFEBOARD™ AIA, they can be handled like any other slab. There is no more need for intensive safety precautions or complex lifting systems when installing your slabs. SAFEBOARD™ AIA provides all the protection you need for handling and installing fabricated slabs. AIA also provides overhang support without the need for any additional countertop overhang supports systems.

With Quick Stick technology, SAFEBOARD™ AIA can be installed in under 10 minutes onto your fabricated pieces. Just clean your piece's bonding surface, peel the Quick Stick paper, and stick it onto the slab. The bond will be fully cured within 24 hours. No need for adhesives, epoxies, or other complex, messy, bonding methods.

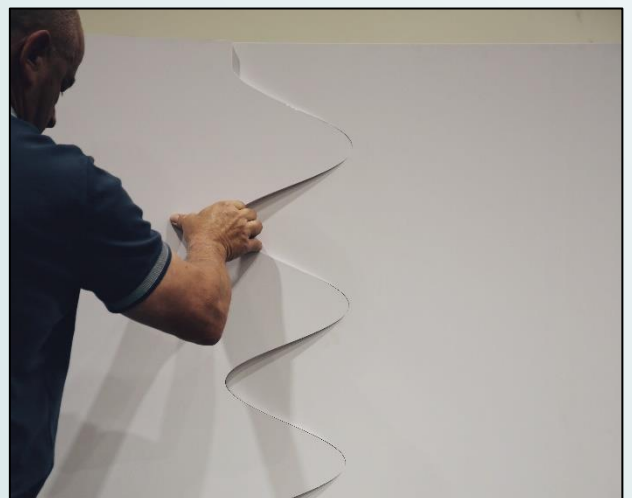
3.1.4 SAFEBOARD™ FMA (Foam Manufacturing Assist)



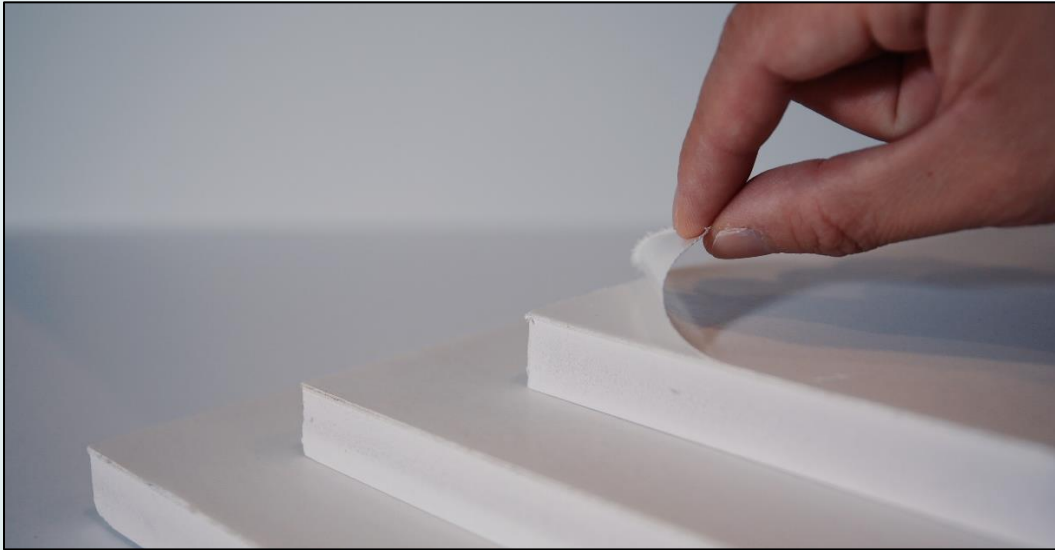
SAFEBOARD™ FMA is a slab reinforcement panel used to reduce risk when putting thin-bodied porcelain, sintered stone, and ultra-compact surfaces through shipping, handling, manufacturing, and installation processes. SAFEBOARD™ FMA comes in Wave Tech™ sets, which are easily assembled on the back of a slab.

FMA comes with Quick Stick adhesive, a pre-applied pressure-sensitive adhesive that allows for the most efficient installation (<10 minutes). See Section 5.5.3 for more information.

SAFEBOARD™ FMA has enough rigidity to confidently reinforce slabs and provides vibration-dampening properties that prevent shattering during cutting. It can be easily routed out for sink installation purposes. FMA is our lightest panel, allowing for easiest handling. FMA has a soft foam surface which is both aesthetically pleasing and nice to the touch.



3.1.5 SAFEBOARD™ FIA (Foam Installation Assist)



SAFEBOARD™ FIA (Foam Installation Assist) is a rigid foam panel with pre-applied Quick Stick adhesive to be installed onto fabricated slab pieces after fabrication but before installation. SAFEBOARD™ FIA has the same implementation as SAFEBOARD™ AIA, except it is made of our signature rigid foam material. It provides your fabricated slab pieces with:

- Flexible and Strong Support
- Vibration and Shock Absorption
- An extra layer of protection

Once fabricated slab pieces have been reinforced with SAFEBOARD™ FIA, they can be handled like any other slab. There is no more need for intensive safety precautions or complex lifting systems when installing your slabs. SAFEBOARD™ FIA provides all the protection you need for handling and installing fabricated slabs.

With Quick Stick technology, SAFEBOARD™ FIA can be installed in under 10 minutes onto your fabricated pieces. Just clean your piece's bonding surface, peel the Quick Stick paper, and stick it onto the slab. The bond will be fully cured within 24 hours. No need for adhesives, epoxies, or other complex, messy, bonding methods.

3.1.6 SAFEBOARD™ Roughtop



SAFEBOARD™ Roughtop is a thicker rigid foam panel used as a plywood replacement for countertop sub-tops/rouhtops. SAFEBOARD™ Roughtop is made of the same material as SAFEBOARD™ FMA and FIA, except it is thicker and comes without pre-applied Quick Stick adhesive. As a roughtop material, SAFEBOARD™ Roughtop has the following qualities:

- Formaldehyde-Free
- Water-Resistant
- Fire Self-Extinguishing
- Higher Quality and Lighter than Plywood
- Engineered to complement all SAFEBOARD™ Products

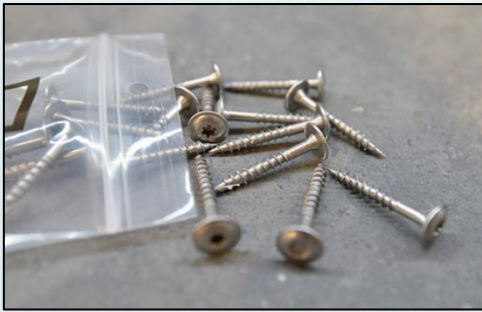
SAFEBOARD Roughtop™ is easily cut, routed out, handled, and installed. It has an incredibly strong bond to any surface using SAFEBOND Hybrid Adhesive. SAFEBOARD Roughtop™ supports and bonds to all SAFEBOARD™ Products.

3.1.7 SAFEBOARD™ Screws

3.1.7.1 SAFEBOARD™ OSP Screws

SAFEBOARD™ OSP Screws are specifically designed for use with SAFEBOARD™ OSP.

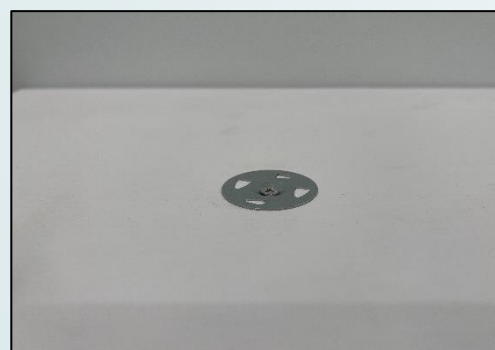
SAFEBOARD™ OSP Screws feature a modified low profile truss head star drive with a tight star recess that holds the bit (a T15) firmly in place. Because standard construction screws tend to be over-torqued and can damage the aluminum cell, using SAFEBOARD™ OSP Screws with SAFEBOARD™ OSP panels is highly recommended.



3.1.7.2 SAFEBOARD™ Roughtop Screws

SAFEBOARD™ Roughtop Screws are specifically designed for use with SAFEBOARD™ Roughtop.

SAFEBOARD™ Roughtop Screws feature stainless steel screws with 1-1/4" galvanized steel washers. Regular construction screws and SAFEBOARD™ OSP Screws can damage the foam body of SAFEBOARD™ Roughtop – SAFEBOARD™ Roughtop Screws were developed to spread out the force while holding the panel firmly in place without damaging the panel.



3.1.8 SAFEBOARD™ Edge Caps

SAFEBOARD™ Edge Caps are aluminum U-channels specifically designed for SAFEBOARD™ OSP edges that will be exposed when installed – such as a 3cm countertop supported by SAFEBOARD™ OSP with no edge detail. Because the honeycomb core of SAFEBOARD™ OSP is sharp, SAFEBOARD™ Edge Caps must be installed to protect from cuts. In addition, SAFEBOARD™ Edge Caps can be installed for increased rigidity and integrity.

SAFEBOARD™ Edge Caps are mostly stocked for 5/8" panels and 1/4" panels, with a smooth aluminum finish. Custom sizes and colors are available upon request.



3.1.9 SAFEBOND™ Hybrid Adhesive

Made in the USA, SAFEBOND was specifically designed to bond SAFEBOARD™ products to other substrates. SAFEBOND uses hybrid technology to develop immediate strength to substrates while the adhesive cures, and provides a long-term, durable bond. Made up of 100% solids, SAFEBOND will not shrink and is free of isocyanates and solvents which make it easy and friendly to work with at a variety of temperatures. SAFEBOND will remain consistent to dispense and tool whether cold or hot outside unlike many solvent-based adhesives. It will bond to wet substrates and can be applied when water or moisture is present without washing off (water-based adhesives) or outgassing and bubbling (polyurethanes). SAFEBOND has a very broad adhesion range and can be used for a variety of industrial or construction applications.

With solvent-based adhesives, the solvent flashes off during curing. Water based adhesives have water loss during curing. This can often leave behind just 60% of what you applied. With SAFEBOND, what you apply stays, which can reduce adhesive usage.

Most adhesives that are eco-friendly do not have the strength required for the job. SAFEBOND offers an eco-friendly option that is also made to perform.

SAFEBOND has excellent strength and fixturing properties. It not only bonds well to a variety of substrates, but it also grabs and holds which helps reduce assembly time, brace usages, fastener usage, and more. SAFEBOND SDS is available on our website.



3.1.10 SAFEBOND™ Seam Tape

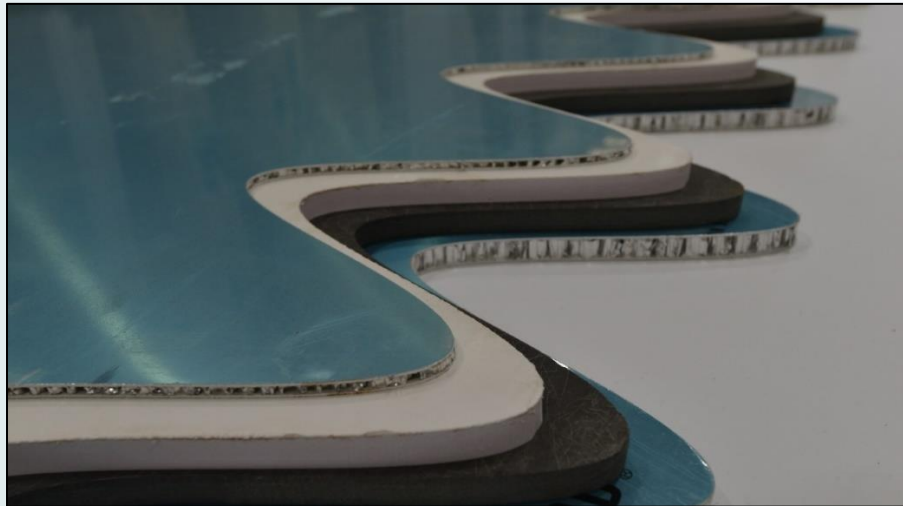
SAFEBOND™ Seam Tape is an adhesive designed specifically to be used with SAFEBOARD™ Quick Stick. If Quick Stick is applied to a slab incorrectly, Quick Stick can detach from the slab surface it is bonded to during intensive fabrication processes. Seam Tape is the solution to this problem – just apply some Seam Tape glue between the detached Quick Stick panel and the slab bonding surface then press it back on. The bond will cure within minutes, or if using our provided Seam Tape accelerator, the bond will cure instantly.

Seam Tape has the same chemical structure as Quick Stick adhesive, so the bond is instantly strong and will not detach. One bottle of Seam Tape will last long enough for many quick fixes.



3.2 SAFEBOARD™ Technology

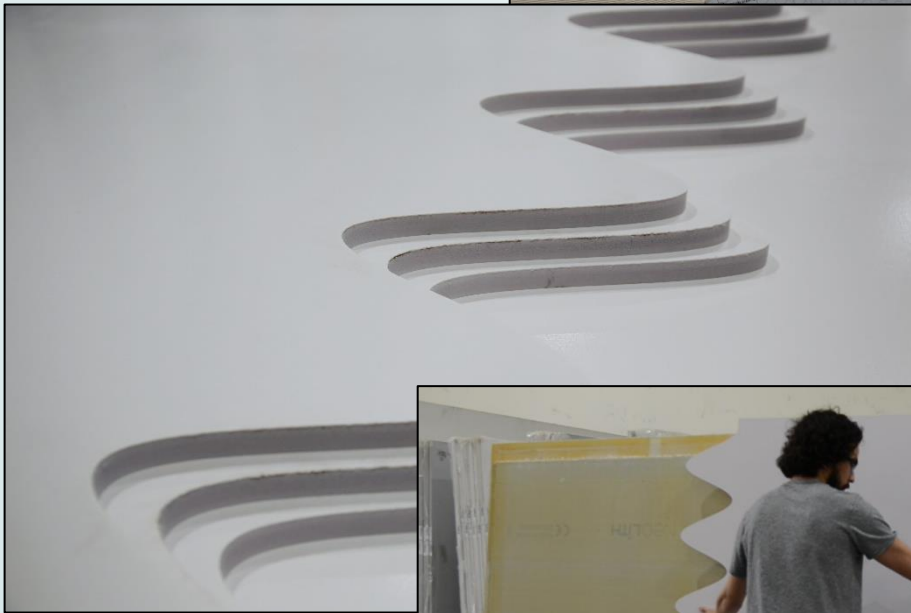
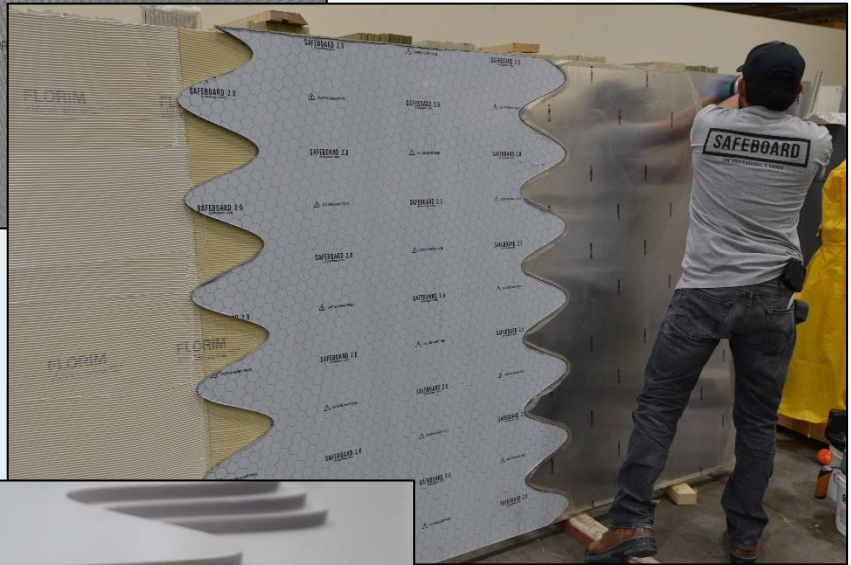
3.2.1 SAFEBOARD™ Wave Tech™



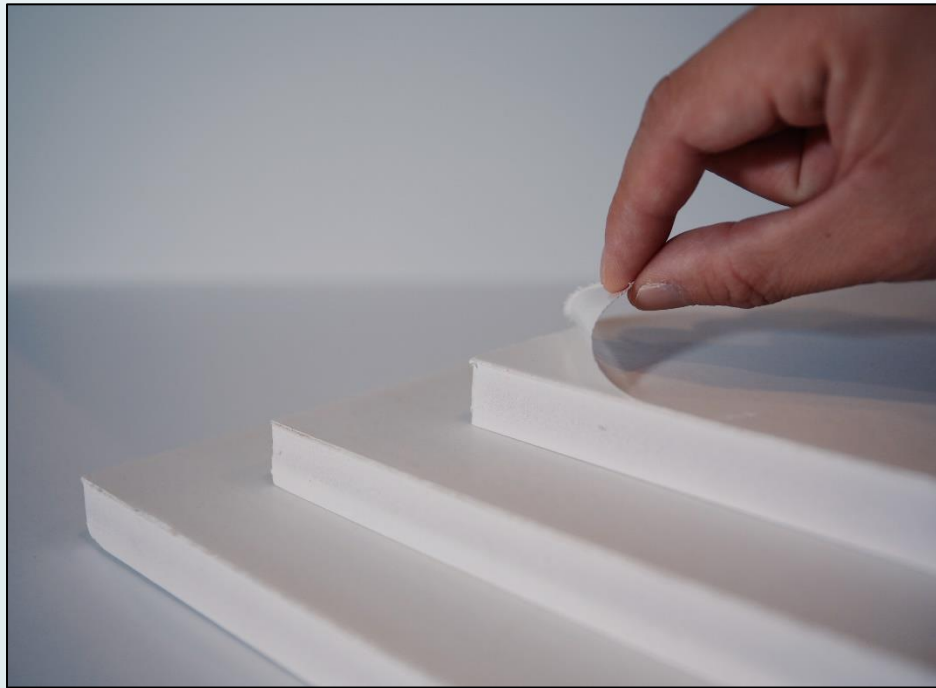
SAFEBOARD™ Wave Tech™ is a patented technology consisting of a set of interlocking SAFEBOARD™ panels featuring carefully engineered “wave-pattern” edges. When pieced together, Wave Tech™ panels span a large area such as 65”x128” and 65”x136”. SAFEBOARD™ Wave Tech™ panels reinforce slabs to make them strong and easy to handle, fabricate, and install, just like any other stone slabs. Wave Tech™ is implemented in a multitude of SAFEBOARD™ products.

Thin-bodied porcelain, sintered stone, and ultra-compact surfaces are difficult to handle and can easily shatter. When backed with Wave Tech™ panels, the slabs become rigid and easy to handle, thus removing all the typical risks that come with using fragile slabs. Backed with Wave Tech™, the fragile slabs can be fabricated and installed without damage or breakage.

Installing a regular sized 4'x10' (or larger) SAFEBOARD™ panel on a slab can be cumbersome. Wave Tech™ comes in smaller sections for easier assembly - the entire assembly can be performed by one person in less than 30 minutes. The wave pattern serves as a guide for assembling the smaller SAFEBOARD™ sections onto the slab. In addition, the specific wave pattern we have engineered creates a stronger joint between panels versus a simple straight cut across the panels.



3.2.2 SAFEBOARD™ Quick Stick



SAFEBOARD™ Quick Stick is a pressure-sensitive adhesive that is pre-applied onto a multitude of SAFEBOARD™ panels. Quick Stick allows for quick and easy installation onto slabs – just peel the silicon protective paper, stick the SAFEBOARD™ panel onto your slab, and apply force to activate the bond. Quick Stick is waterproof and resilient to breakage with its incredible tack and tensile strength.

Quick Stick is pre-applied to a multitude of SAFEBOARD™ products, such as AIA (Aluminum Installation Assist), FMA (Foam Manufacturing Assist), and FIA (Foam Installation Assist). With Quick Stick adhesive, there is no more need for complicated and messy adhesive solutions – just peel and stick!

3.3 Safety Guidelines

The following safety guidelines are to be considered when using SAFEBOARD™ products:

- Thoroughly read and understand SAFEBOARD™ products SDS (Safety Data Sheet) documents prior to usage.
- SAFEBOARD™ OSP has sharp edges. Wearing cut-resistant gloves is highly recommended when handling SAFEBOARD™ OSP.
- When cutting SAFEBOARD™ panels, eye protection and a mask are highly recommended.
- Always follow best practices for the work being performed.
- Personnel must have appropriate PPE for the work being performed.



4 Applications

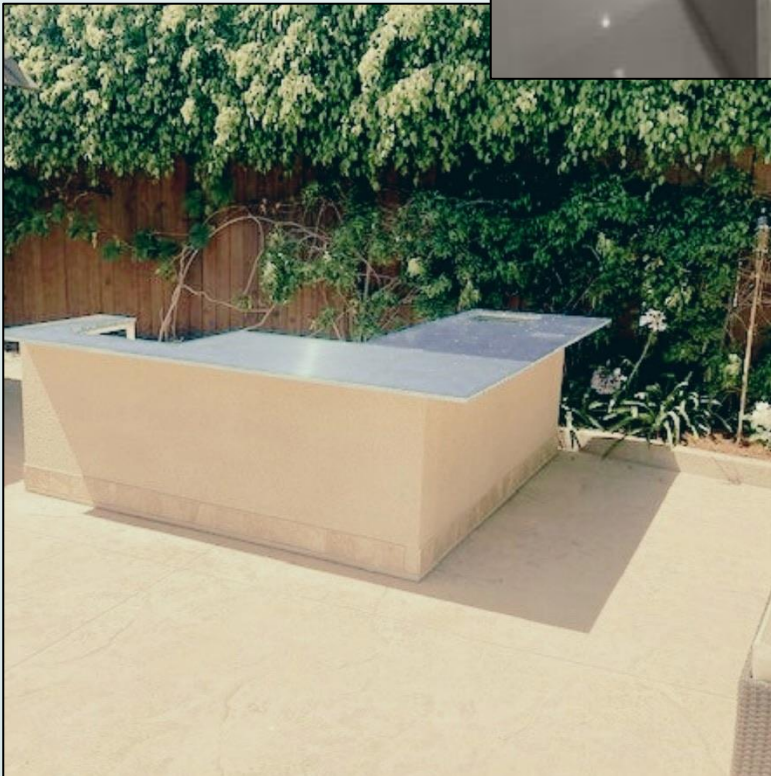
4.1 Designers and Architects

SAFEBOARD™ OSP allows for designs that were previously impossible. Because of the overhang strength of SAFEBOARD™ OSP, countertop overhangs can be designed without the need to include corbels or support beams for support.

Without the need for under-mounted support, countertop overhangs supported by SAFEBOARD™ OSP have completely open space under the overhang. The free space can be used for more storage, more cabinets, creative design, or simply aesthetics.

SAFEBOARD™ OSP is easy to include in any design concept, as it can be treated like any other regular plywood panel – just without the need for support. Simply create your design according to your necessary dimensions, and SAFEBOARD™ OSP can be implemented incredibly easily.





4.2 Homeowners

SAFEBOARD™ products are designed to protect your investments. If you just purchased an expensive, high-end, premium decorative stone slab, you don't want to take any risks with it.

Installing your new slab on a cheap plywood sub-top will inevitably lead to degradation and, at worst, breakage of your installed countertop. Don't take these risks and use SAFEBOARD™ OSP instead. SAFEBOARD™ OSP is stronger, lighter, and just as easy to use and install as plywood. SAFEBOARD™ OSP protects your premium stone, allows you to install longer overhangs without the need for any additional support, and is designed to be used in both interior and exterior applications. SAFEBOARD™ products are also waterproof, so they will not rot, outgas, or smell like wet plywood. In addition, SAFEBOARD™ OSP's smooth aluminum finish provides a clean and sanitary look that is more aesthetically pleasing than plywood.

If you just purchased a thin-bodied porcelain, sintered stone, or ultra-compact surface slab, reinforce it with a SAFEBOARD™ Assist product (FMA, FIA, etc.). SAFEBOARD™ Assist products ensure your slab will make it through the toughest shipping, handling, fabrication, and installation processes without breakage. There will be no wasted time or money, and any fabricator will be more than willing to work with your now reinforced material.

Your home deserves the best treatment and the safest environment, and SAFEBOARD™ products are developed specifically for this purpose.

4.3 Fabricators

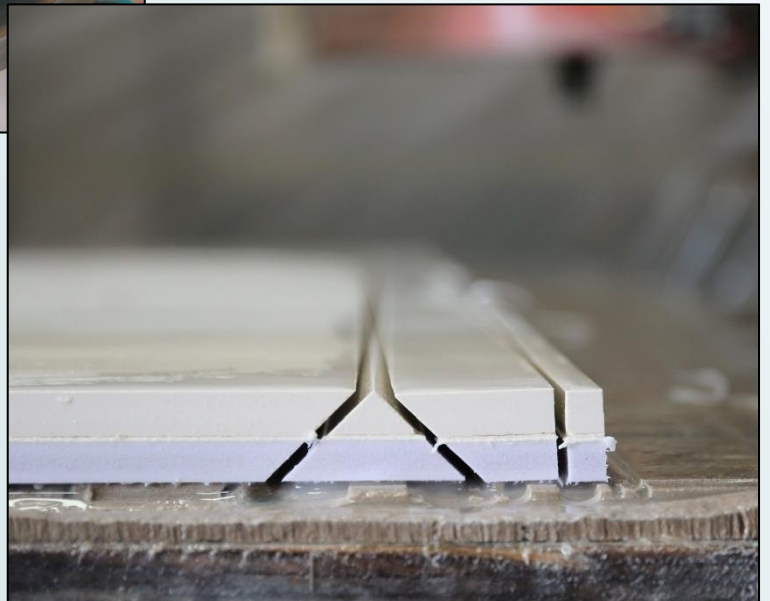
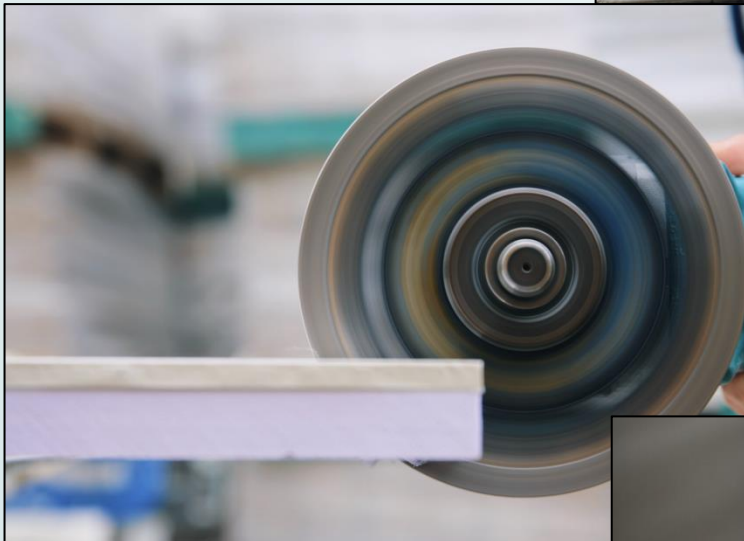
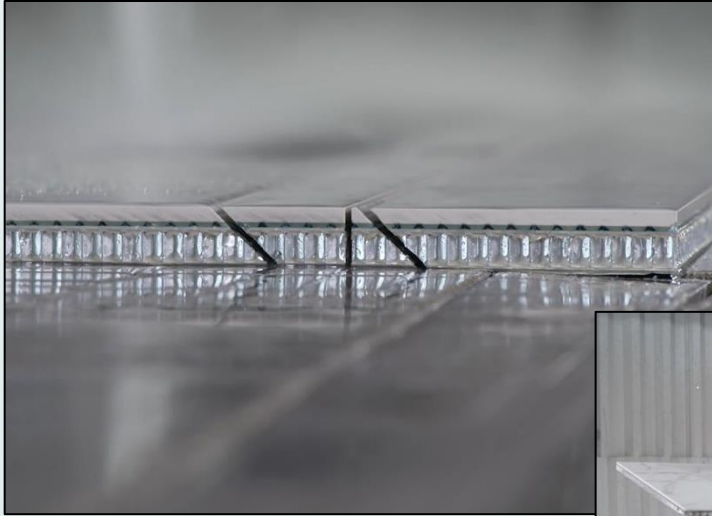
SAFEBOARD™ products are designed to make fabricators' jobs easier.

SAFEBOARD™ OSP makes installation jobs easier than plywood. Because SAFEBOARD™ OSP is so much stronger than plywood, no extra support items need to be installed for a long overhang. This saves time, labor, and money.

SAFEBOARD™ Wave Tech™ and SAFEBOARD™ Quick Stick are developed and engineered specifically for getting difficult-to-handle materials through fabrication with ease. With SAFEBOARD™ products and technology, fabricators no longer need to fear thin-bodied porcelain, sintered stone, and ultra-compact surfaces breaking during the fabrication process. This saves immeasurable amounts of time and money. Water jets and regular CNC blades can be used at regular speed to cut porcelain slabs backed with Wave Tech™. The slabs and pieces can be handled like other stronger stone (e.g., quartz) without breaking.

SAFEBOARD™ Screws, Edge Caps, and SAFEBOND are made specifically to be used to install SAFEBOARD™ products, so no time must be spent choosing construction items as we supply the whole package. Just cut your SAFEBOARD™ to size, map your screw patterns, and screw it down. Then, use SAFEBOND to install your countertop.





5 Technical

5.1 SAFEBOARD™ Products Technical Data

Technical Data Sheets, Installation Guides, and other documentation for SAFEBOARD™ Products are available for download on our website at:

<https://safeboardpro.com/downloads/>

5.2 Basic Product Specifications

The following table lists the basic specifications for SAFEBOARD™ products. Explanation for each category:

- **Overhang Length:** Overhang length that can be achieved without any additional support.
- **Interior/Exterior:** Recommended interior or exterior usage of the product.

Product	Thickness	Overhang Length	Interior/Exterior
OSP	1/4"	≤10"	Both
OSP	5/8"	≤16"	Both
OSP	7/8"	≤19"	Both
Wave Tech™ OSP	1/4"	≤10"	Both
Wave Tech™ OSP	5/8"	≤16"	Both
FMA	15mm, 10mm	NA	Interior
FIA	15mm	NA	Interior
Roughtop	17mm	NA	Interior

Table 1: Basic Product Specifications

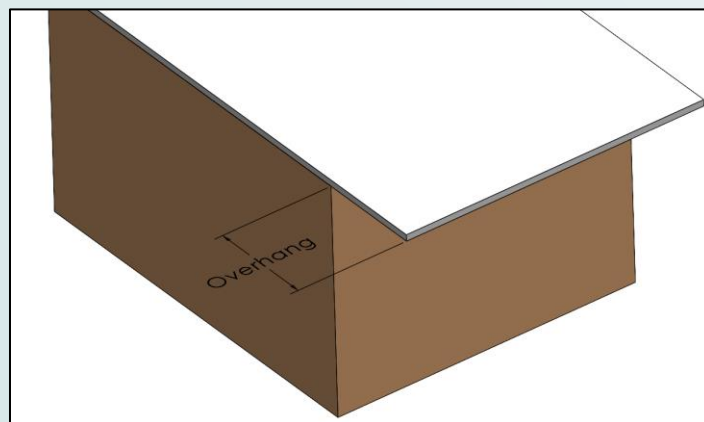


Figure 1: Overhang Length Dimension

5.3 Cutting Recommendations

5.3.1 SAFEBOARD™ Panel Cutting Recommendations

All types of SAFEBOARD™ panels can be cut with a regular circular saw, table saw or jigsaw. It is highly recommended to wear safety glasses and a safety mask to avoid harm from panel debris.

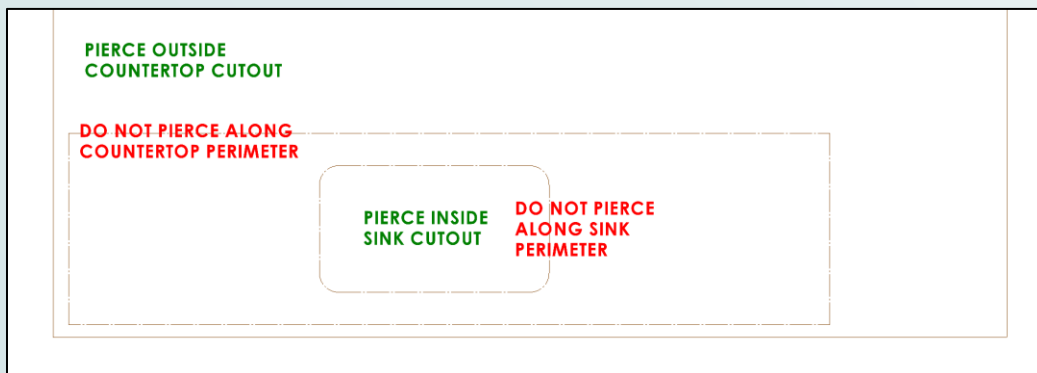


5.3.2 SAFEBOARD™ Wave Tech™ Cutting Recommendations

Slabs reinforced with Wave Tech™ are recommended to be cut with a Waterjet or CNC. The following are some recommendations for the different types of cutting.

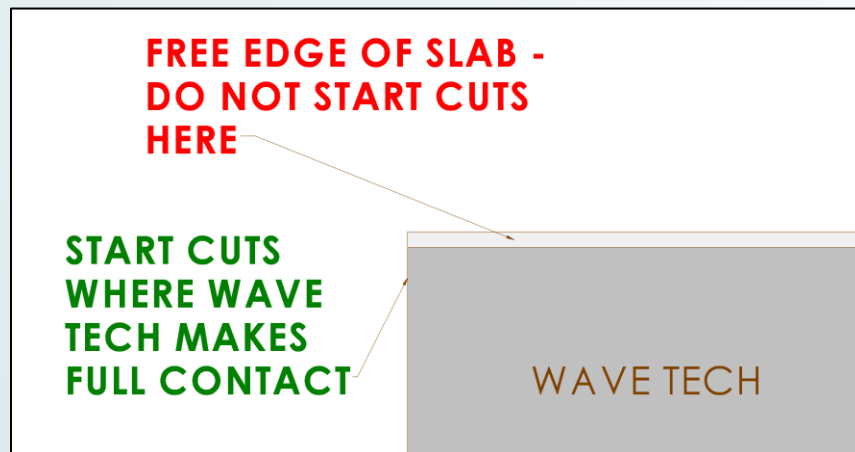
With a Waterjet:

- Pierce several inches out from the perimeter of the cut pattern. Do not pierce along the perimeter of the cut to prevent blowout of the slab.
- Pierce at full pressure. If using a lower pressure to pierce, the waterjet stream has a chance to not pierce the SAFEBOARD™ panel and can damage the bond between the panel and the slab.



With a CNC, Overhead Saw, or similar system:

- Always use the proper blade for the slab you are cutting. SAFEBOARD™ recommends using ProRai™ brand blades for cutting slabs reinforced with SAFEBOARD™.
- SAFEBOARD™ Wave Tech™, if not bonded to the entire surface area of the slab (e.g., if the slab is taller than the height of the Wave Tech™ panel), will not protect the portion of the slab that is free. This free edge may chip when being cut. Cut only the sections of the slab that are in full contact and fully bonded to the Wave Tech™. Alternatively, perform a perimeter cut to remove the free-hanging material.



- Ensure a proper speed is used for cutting. Like any slab, setting the travel speed of the saw too fast can cause undesirable results.
- Ensure a steady stream of water is applied while cutting to reduce risk of chipping.
- Always ensure the correct blade is used for the material you are cutting.

The above points are recommendations only and should not override the technical guidelines of the specific slab manufacturers.

5.4 Adhesive Guidelines

5.4.1 Natural and Engineered Stone Slabs

Because SAFEBOARD™ panels are made of unique materials, we do not recommend just any adhesives for installation. When installing natural or engineered stone slabs on a SAFEBOARD™ sub-top, we recommend using SAFEBOARD Hybrid Adhesive. Natural and engineered stone slabs can be spot-bonded to a SAFEBOARD™ sub-top using SAFEBOARD adhesive.

SAFEBOARD fully cures in 7-days, so ensure there are no disturbances made to the countertop during the curing process. SAFEBOARD has great green strength, so the chance of disturbing an installed countertop before the SAFEBOARD is fully cured is low.

5.4.2 Sintered Stone and Ceramic Slabs

Special care must be taken when bonding sintered stone or ceramic to a SAFEBOARD™ sub-top. These types of slabs **cannot** be spot-bonded directly to the sub-top, as any gaps between the slab and the sub-top will be prone to breakage if pressure is applied. We recommend first reinforcing your fragile slab with SAFEBOARD™, FMA, FIA, Wave Tech™ OSP, or AIA. Once reinforced with any of these products, the slabs can be spot-bonded to your sub-top without failure using SAFEBOARD Hybrid Adhesive.

For SAFEBOARD™ reinforcement products that do not have pre-applied Quick Stick adhesive, reach out to a SAFEBOARD™ representative for adhesive recommendation.

5.5 Installation Guidelines and Drawings

All Installation Guidelines for SAFEBOARD™ products can be found individually on our website:

<https://safeboardpro.com/downloads/>

5.5.1 Installation Guidelines – SAFEBOARD™ Sub-top

Use the following instructions for installing SAFEBOARD™ panels as a countertop sub-top.

- 1) SAFEBOARD™ panels can be cut to size using a skill saw or a table saw. The blade used can be a wood blade or circular saw blade. Be sure to use protective gloves and safety glasses when cutting.
- 2) Once cut to size, test the fitting of the panel on top of the cabinet to ensure the panel has been cut to the correct size. For overhangs, ensure at least 2/3 of the panel is over the cabinet.
- 3) Map your screw pattern by measuring and marking on the sub-top where you will drive the screws. Around perimeter of the cabinet, evenly space screws 12 to 16 inches apart. In the middle of the panel along cabinet frame, evenly space screws 8-12 inches apart. Screws must start 2 inches in from the edge.
- 4) Screw the sub-top down to the frames of the cabinet using either SAFEBOARD™ OSP or Roughtop Screws, depending on what panel you are installing.
- 5) SAFEBOARD™ Edge Cap is installed to OSP edges when edge detail is not applied and when the core is exposed. SAFEBOARD™ Edge Cap can also be installed for increased integrity.
- 6) Bond the stone to the SAFEBOARD™ sub-top using SAFEBOND Hybrid Adhesive. SAFEBOND has excellent green strength but will fully cure in ~7 days. Follow Section 5.4 for additional adhesive guidelines.

Below is a depiction of SAFEBOARD™ panels when installed as a sub-top. Note that only the SAFEBOARD™ OSP can be installed with an overhang – Foam products are not rated for overhang support.

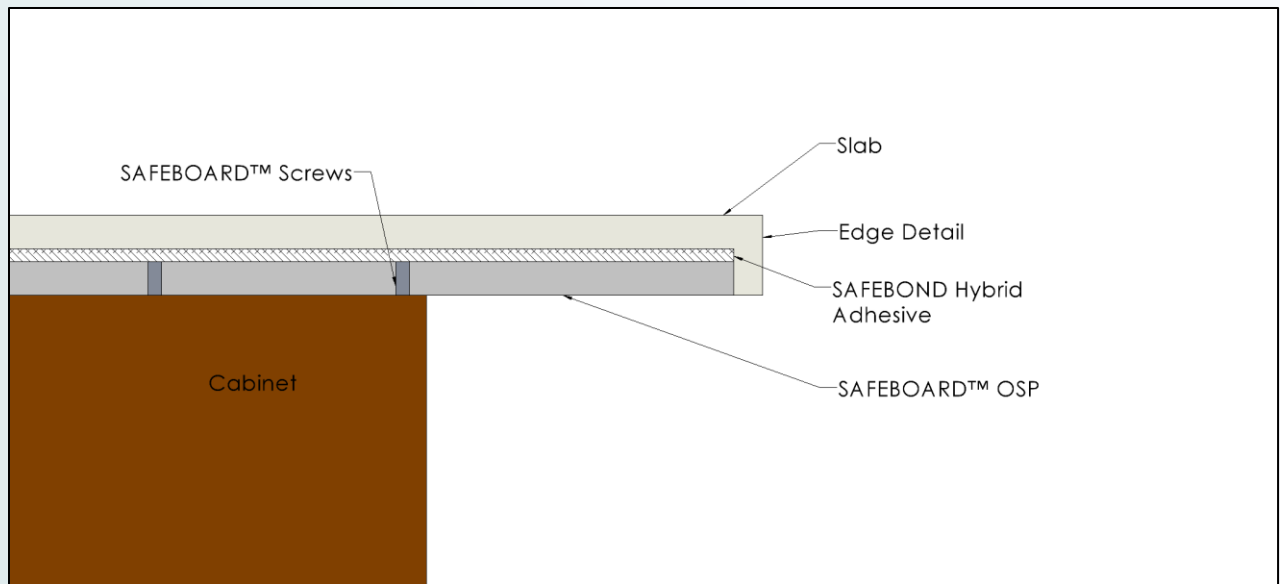


Figure II: SAFEBOARD™ OSP - Sub-top Installation

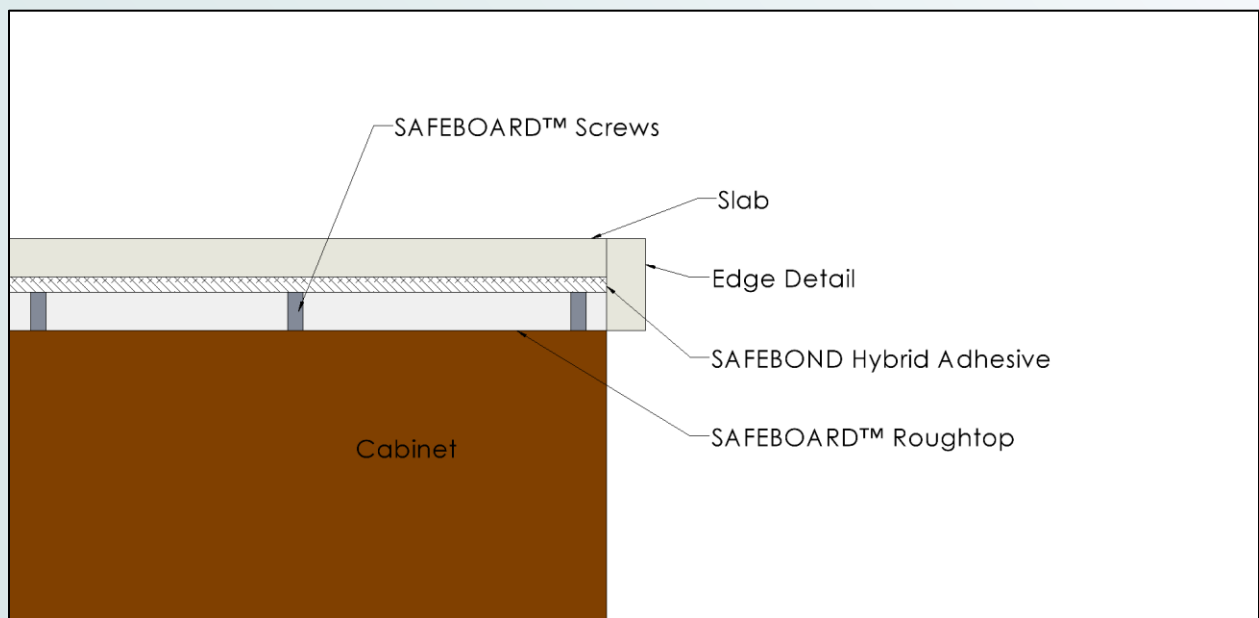


Figure III: SAFEBOARD™ Roughtop - Sub-top Installation

*Thicknesses not to scale – adhesive thicknesses exaggerated for display purposes.

5.5.2 Installation Guidelines – SAFEBOARD™ Wave Tech™ with Epoxy Adhesive

Use the following instructions to install SAFEBOARD™ Wave Tech™ to a slab using epoxy adhesive. These instructions are also available in a standalone bi-fold available on our website – the bi-fold includes pictures for each step of this process.

- 1) **NOTE:** SAFEBOARD™ Wave Tech™ OSP panels have a sharp corner at the ends. Be careful with these sharp corners when handling.
- 2) If necessary, cut your SAFEBOARD™ Wave Tech™ panel to the correct size for your slab. The standard size of a SAFEBOARD™ Wave Tech™ panel for slab backing is 65" x 136" when all three pieces are fully assembled. If this is larger than your slab, cut the SAFEBOARD™ to size - it can be cut with a regular circular saw or table saw.
- 3) Ensure your slab is mounted in a position where it will be undisturbed for at least 24 hours - this is how long it will take the adhesive to cure. It is recommended to mount the slab on an A-Frame.
- 4) Wipe down the entire bonding surface of the slab with cleaning agent to ensure adhesive bonds correctly.
- 5) Remove protective film from both sides of SAFEBOARD™ Wave Tech™ panels. One side is tinted blue. This side has been applied with a primer coating for greater bond strength once applied to the slab and is the side that must be bonded to the slab.
- 6) Wipe down the blue-tinted primer-coated side of the SAFEBOARD™ Wave Tech™ panel with cleaning agent. This is to ensure the surface is clean before bonding. The cleaning agent should not affect the primer coating.
- 7) Using SAFEBOARD™ Wave Tech™-specific recommended adhesive, mix parts according to SAFEBOARD™ representative-advised guidelines.
- 8) Ensure the adhesive is thoroughly mixed, such that the resulting color is consistent throughout.
- 9) Apply adhesive to slab in preparation to spread evenly with 1/4" or 1/8" trowel.
- 10) Use a 1/4" or 1/8" trowel to thoroughly spread adhesive. Be sure to finish troweling with all adhesive lines going in one direction.

- 11) Place first SAFEBOARD™ Wave Tech™ panel on slab, starting at one edge of the slab. Firmly press down on the SAFEBOARD™ Wave Tech™ panel while wiggling back and forth perpendicular to the troweled adhesive lines. If the slab is not flat, clamp the panel to the slab so that it does not sag while curing. Do not clamp with excessive force - the SAFEBOARD™ Wave Tech™ panels can be dented.
- 12) Place second SAFEBOARD™ Wave Tech™ panel on slab, interlocking the edge waves with the first panel. Use the same press/wiggle method as the first panel to properly stick to the adhesive.
- 13) Place the last SAFEBOARD™ Wave Tech™ panel on slab using the same method as the second panel.
- 14) Use vibrating suction cup on back of SAFEBOARD™ Wave Tech™ panels to ensure adhesive spreads and is leveled evenly. While applying pressure with the vibrating suction cup, move towards the wave-pattern edges of the panels.
- 15) Let adhesive cure for at least 24 hours. Do not attempt to handle assembly until adhesive has cured for at least 24 hours. Note – temperature can affect the curing time of the adhesive. Refer to adhesive TDS for guidelines.

Because SAFEBOARD™ Wave Tech™ is bonded to your slab before fabrication, the countertop installation is slightly different than regular SAFEBOARD™ as a sub-top. SAFEBOARD™ Wave Tech™ reinforced slabs must be bonded to your cabinet using SAFEBOND adhesive.

In addition, when using SAFEBOARD™ Wave Tech™ OSP, it is highly recommended that the exposed edge of the panel at the bottom of the edge detail is either filled with epoxy or has rubber inserts installed to protect from cuts.

See the following installation drawings:

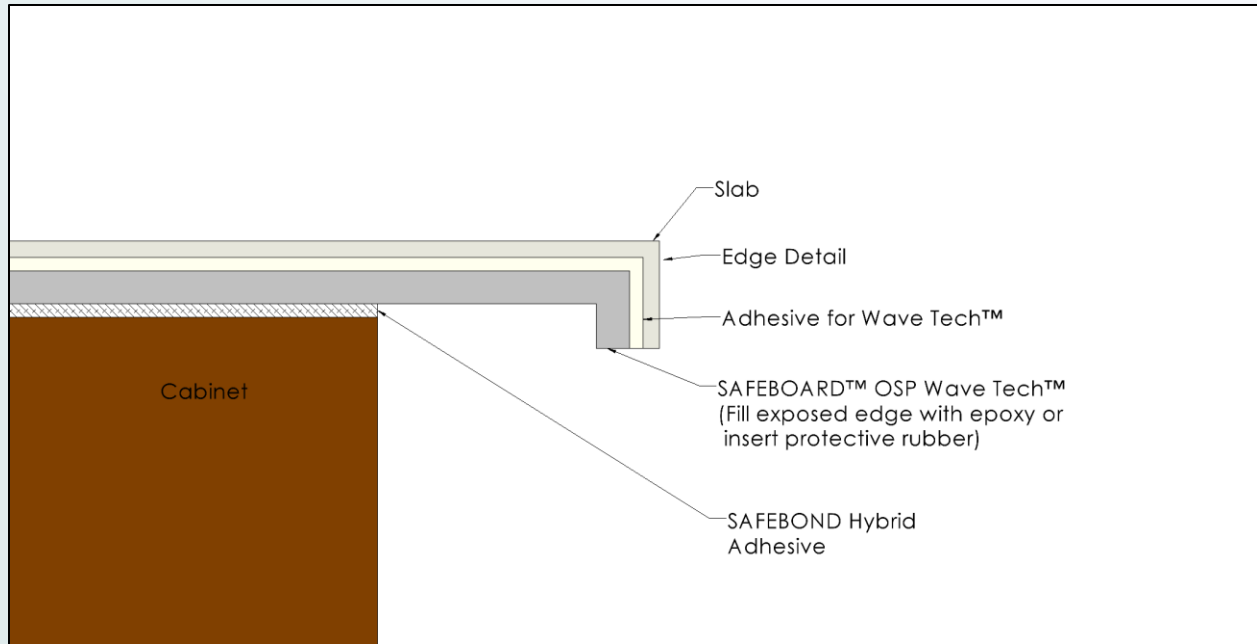


Figure IV: SAFEBOARD™ OSP - Wave Tech™ Installation

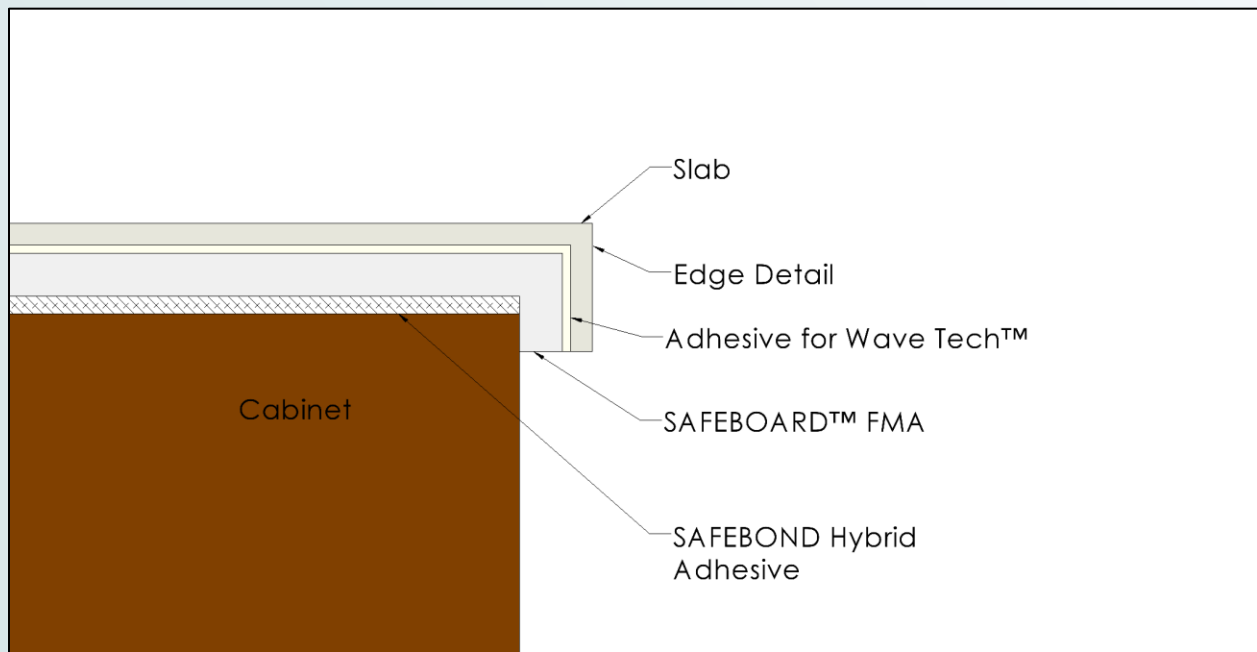


Figure V: SAFEBOARD™ FMA - Wave Tech™ Installation

*Thicknesses not to scale – adhesive thicknesses exaggerated for display purposes.

SAFEBOARD™ Wave Tech™ comes in a variety of materials and thicknesses – however, not all variations are rated for overhang support. So, a slab reinforced with non-overhang rated Wave Tech™ can be installed on top of an overhang rated SAFEBOARD™ sub-top to achieve an overhang. See the following images:

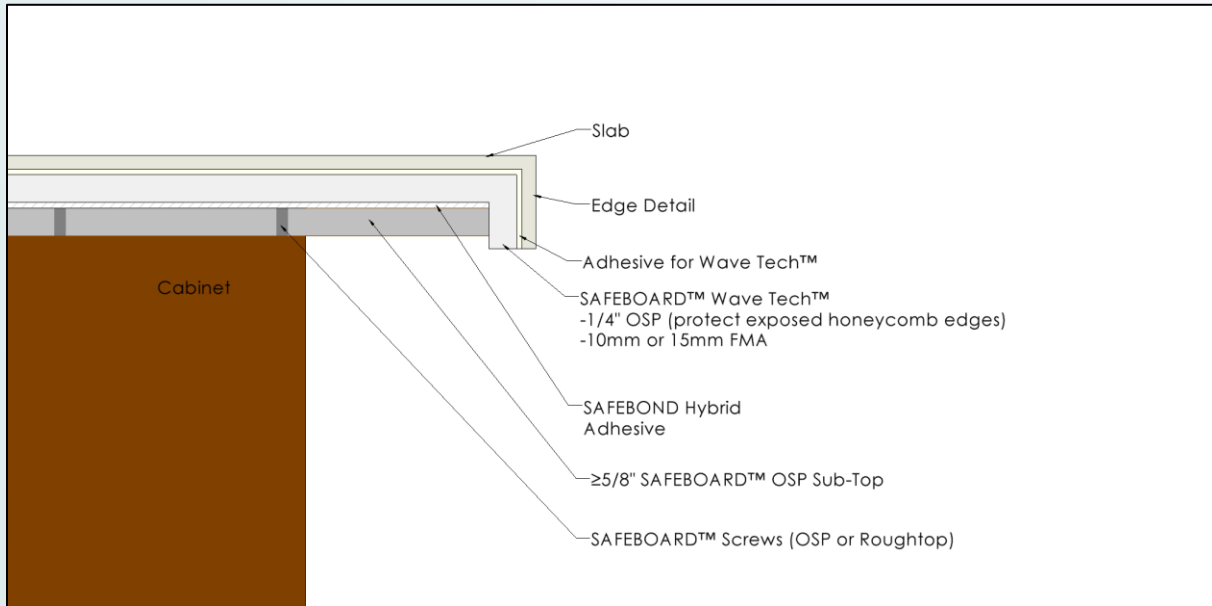


Figure VI: SAFEBOARD™ Wave Tech™ Supported by SAFEBOARD™ OSP



Figure VII: SAFEBOARD™ Wave Tech™ Supported by SAFEBOARD™ OSP - Real Application

5.5.3 Installation Guidelines – SAFEBOARD™ FMA

SAFEBOARD™ FMA comes with a pre-applied adhesive for the easiest assembly. FMA panels are backed with a construction-grade double-stick tape that removes the need for a two-part epoxy for assembly onto a slab. Follow these steps for FMA installation:

- 1) If necessary, cut your SAFEBOARD™ FMA panel to the correct size for your slab.

SAFEBOARD FMA comes in various sizes:

- a. 65" x 128" x 10mm (3 pieces)
- b. 65" x 128" x 15mm (3 pieces)
- c. 65" x 136" x 15mm (4 pieces)

FMA can also be score-and-snapped with a knife and some force. Cut about 1/2 of the panel thickness deep, and snap at the cut line to easily cut FMA to size.

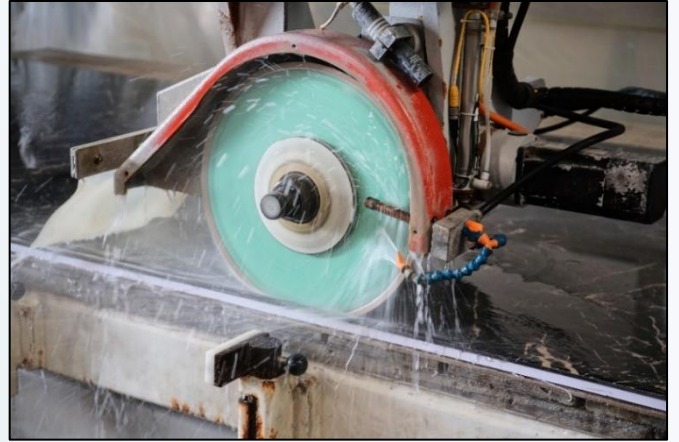
- 2) Ensure your slab is mounted in a position where it will be undisturbed during the installation process. We recommend using an A-frame and ensuring the slab is flat and even.
- 3) Wipe down the entire bonding surface of the slab with cleaning agent to ensure Quick Stick adhesive bonds correctly. We recommended cleaning by wiping down with rags and Isopropyl Alcohol, then blowing off remaining debris with a blower.
- 4) We recommend performing a "dry run" of the Wave Tech panels onto the slab, to verify the fit is correct and there will not be any misplacement of the panels. Once the panels are set in the upcoming steps, they cannot be adjusted.
- 5) When ready, peel the protective paper off of the Quick Stick side of either the left or right edge panel. Be sure the surrounding environment is free of dirt, debris, and water so that the Quick Stick adhesive does not get contaminated.
- 6) Stick the first panel on the slab. Start by lining up the bottom edge of the panel with the bottom edge of the slab, and stick it on the slab by slowly moving upwards. Slightly flex the panel backwards while doing this. This is to prevent air gaps from being present under the panel.

- 7) Apply the second panel to the slab by lining up the wave edges with the first panel.
Press onto the slab in one direction while slightly bending the panel to prevent air gaps.
- 8) Apply remaining panels to the slab using the same methods as the first two panels.
- 9) Using a roller, apply pressure to the entire surface of the panel. Quick Stick adhesive is pressure sensitive, and must be pressed thoroughly on the bonding surface to ensure the strongest bond and reduce any air gaps. We recommend laying cardboard on the floor, laying the slab (slab face down), and rolling over with a weighted roller.
- 10) Allow at least 24 hours for Quick Stick adhesive to fully set before fabrication. Quick Stick adhesive bonds fast enough to handle the assembly right after application, and the bond increases in strength over time. This additional strength is necessary for getting through intensive fabrication processes.

Additional Information and Guidelines

- FMA is a reinforcement system and allows fragile slabs to be handled more easily. Still take extra caution when handling fragile slabs after being reinforced with FMA.
- When fabricating porcelain and ceramic slabs, follow all porcelain manufacturer guidelines and porcelain fabrication best practices (performing relief-cuts around the edges, performing through-cuts instead of contained cuts, etc.).
- When putting assemblies through fabrication processes that involve large amounts of water (bridge saw cutting, waterjet cutting, etc.), cut pieces must be allowed to dry before continuing fabrication processes.
- Some slabs produce more debris when being cut than others. This slab-produced debris can cause minor delaminations of SAFEBOARD™ panels from the slab. Slabs backed with protective fiberglass are less likely to produce harmful debris.
- If SAFEBOARD™ FMA Wave Tech panels are not applied correctly to your slab or the slab produces too much debris, delamination can occur during fabrication. If delamination occurs, take the following steps:
 1. Allow surfaces to dry.

2. Apply SAFEBOND Seam Tape between delaminated foam and slab piece. The bond will cure within 5 minutes and the surfaces are now rejoined.
- If the delamination is large, break off the free hanging FMA panel and re-apply foam pieces as necessary using SAFEBOARD™ (FIA) Foam Installation Assist.
 - SAFEBOARD is not responsible for any results that may occur due to failure to follow these instructions and guidelines.



5.5.4 Vertical Installation Recommendations

Below are general recommendations for vertical applications and installations of SAFEBOARD™ products, such as shower walls.

5.5.4.1 SAFEBOARD™ FMA or FIA-Reinforced Slabs

Vertical application recommendations for slabs reinforced with SAFEBOARD™ FMA or FIA:

- SAFEBOARD™ recommends using SAFEBOARD™ Roughtop as shower wall substrates, mounted to studs using SAFEBOARD™ Roughtop Screws.
- SAFEBOARD™ recommends vertical wall mounting of FMA/FIA-reinforced slabs using SAFEBOND Hybrid Adhesive. For shower walls, reinforced slabs will be mounted to a SAFEBOARD™ Roughtop substrate using SAFEBOND.
- When applying as a shower wall or other wet environment, ensure SAFEBOND adhesive is troweled vertically to allow any moisture to exit through the troweled adhesive channels.

5.6 General Guidelines, Warnings, Disclaimers

- SAFEBOARD™ is not responsible for any results that may occur due to failure to follow the guidelines and recommendations presented in this manual.
- SAFEBOARD™ is not responsible for any results that may occur due to mishandling or misuse of products for any purpose other than the intended use.
- If using methods, materials, adhesives, or processes other than what is recommended in this product manual, unpredictable and/or undesirable results may occur.
- Always handle all materials with care.
- For exterior applications, certain stone types, materials, and colors can have unpredictable responses to temperature and weather changes. Ensure outdoor factors are considered when choosing SAFEBOARD™ and accessories for your application.

6 Certified and Approved Brands

SAFEBOARD™ performs extensive certification testing with prominent manufacturers of porcelain, sintered stone, and ultra-compact surfaces.

Reach out to a SAFEBOARD™ representative at sales@safeboardpro.com if you have questions about any of the following subjects:

- Checking if a slab brand/product line has been certified with SAFEBOARD™ products.
- Getting your slab brand/product line certified with SAFEBOARD™ products.
- Having SAFEBOARD™ perform additional testing for already certified slab brands/product lines.

7 Contact and Social

For any questions or inquiries, feel free to reach out to the contact information below.

SAFEBOARD™ representatives are happy to help.

SAFEBOARD™ Contact Information

Company: SAFEBOARD™, LLC.

Phone: (805) 626-7333

Email: sales@safeboardpro.com

Website: <https://safeboardpro.com/>

Follow SAFEBOARD™ on social media!



YouTube: https://www.youtube.com/@safeboard_pro



Instagram: https://www.instagram.com/safeboard_pro/?hl=en



LinkedIn: <https://www.linkedin.com/company/safeboardpro/>