

DRAGONBOARD.COM



**DRAGONBOARD USA**  
**MAGNESIUM OXIDE [MGO]**  
**STRUCTURAL PANEL SUBFLOOR**  
**TECHNICAL GUIDE**



UL Designs G575 (FLOOR/CEILING) U055 (WALL)

# DRAGONBOARD MGO SUBFLOOR

## CONTACT INFORMATION

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### PRODUCT INFORMATION

Visit our website at [dragonboard.com](http://dragonboard.com) for additional product information, architectural specifications, submittal sheet, safety data sheets & additional information

### PHONE

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TECHNICAL GUIDE – 12.12.2019

# DRAGONBOARD MGO SUBFLOOR

## PANEL APPLICATIONS

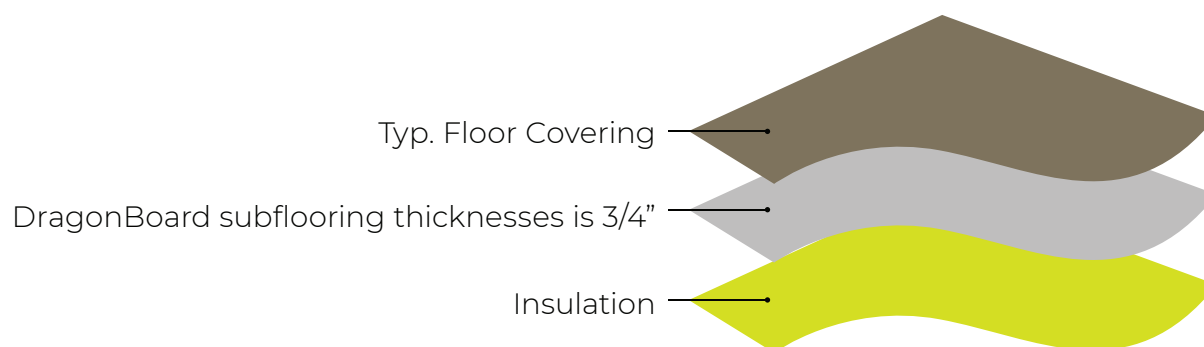
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### SUB-FLOORING APPLICATIONS

DragonBoard Magnesium Oxide (MgO) board is an excellent choice for various building applications requiring strong and durable structural and fire-resistant subflooring for both wood and metal joists.

When utilizing DragonBoard for both ceiling and subfloor assemblies, fire resistant properties are improved beyond the already impressive fire-ratings, protecting the floor structure from a flammable event.



Subfloor over wood joists



Subfloor over steel joists

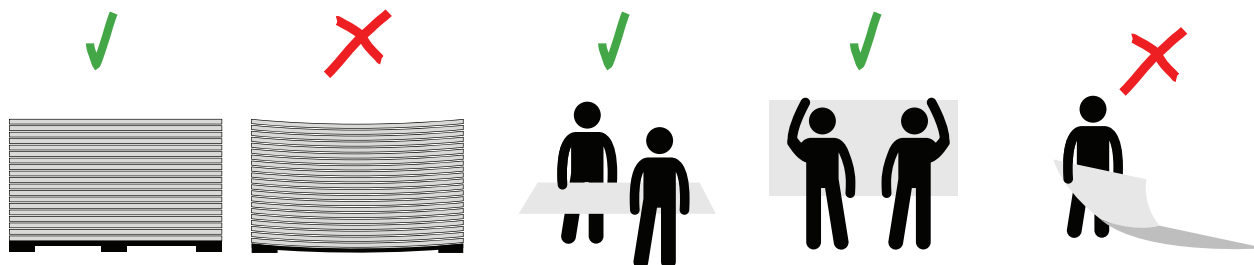
# DRAGONBOARD MGO SUBFLOOR

## PANEL LOADING, HANDLING & CUTTING

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### SUGGESTED HANDLING INSTRUCTIONS

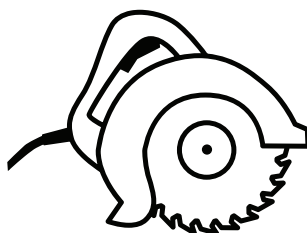
- To protect edges from damage, do not store DragonBoard panels vertically.
- Do not stack DragonBoard panels higher than 10'.
- Cover DragonBoard panels with a non-permeable waterproof material when storing outdoors to protect against weather, direct sunlight, surface contamination, and construction traffic.
- DragonBoard should be stored in a cool dry place as with any other sheet goods. Boards should be carried on their side and care taken to avoid damaging corners and shiplap edges. Use dunnage plywood on top of the installed DragonBoard to protect it during the construction phase.
- When handling DragonBoard larger than ½ sheet, always use at least two people for lifting and carrying.
- Hold DragonBoard panels with evenly spaced supports to prevent damage from excessive bending/flexing.
- Always provide 3 supports (left, right, center) on DragonBoard pallets.
- Refer to DragonBoard safety data sheet (SDS) at DragonBoard.com for additional safety information.



### SUGGESTED HANDLING & CUTTING SAFETY GEAR



Gloves



Circular Saw



Dust Mask



Protective Eyewear



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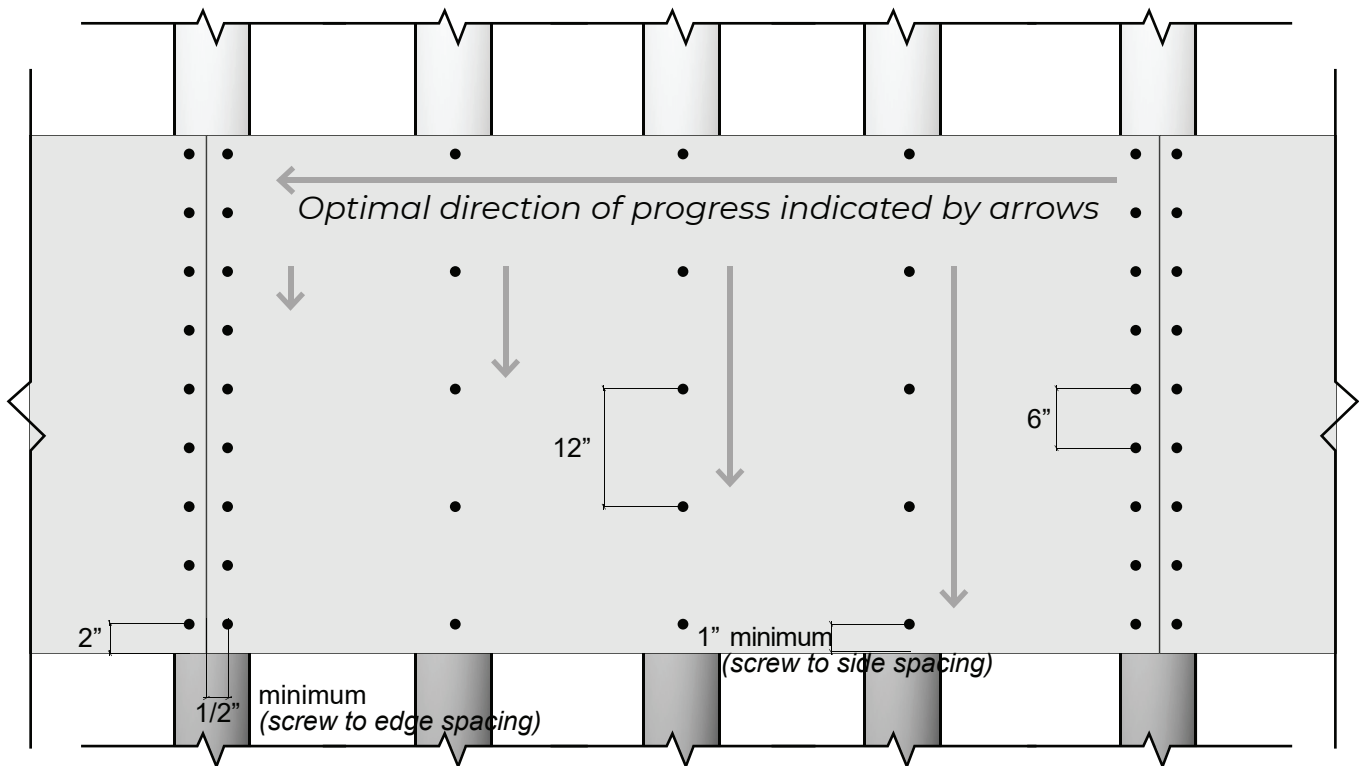
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# DRAGONBOARD MGO SUBFLOOR

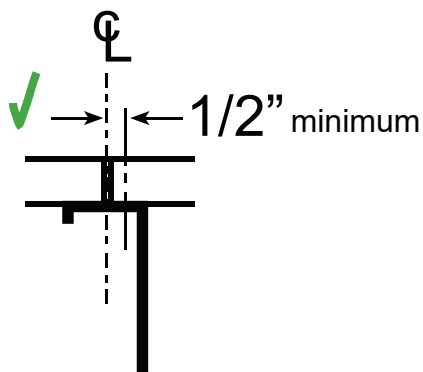
## FASTENING THE PANEL

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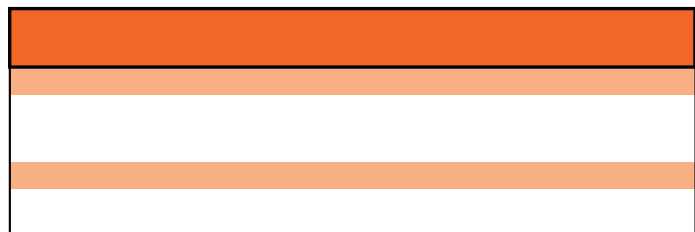
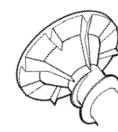
The center of fasteners should be no less than 1/2" from any panel edge.



- For Optimal Results when Utilizing DragonBoard, the Suggested Fastener is the Rock-On 1-1/4 in. Cement Board Screws (Pictured Below)



**ITW Buildex**  
**ROCK-ON™**  
 Cement Board Fasteners



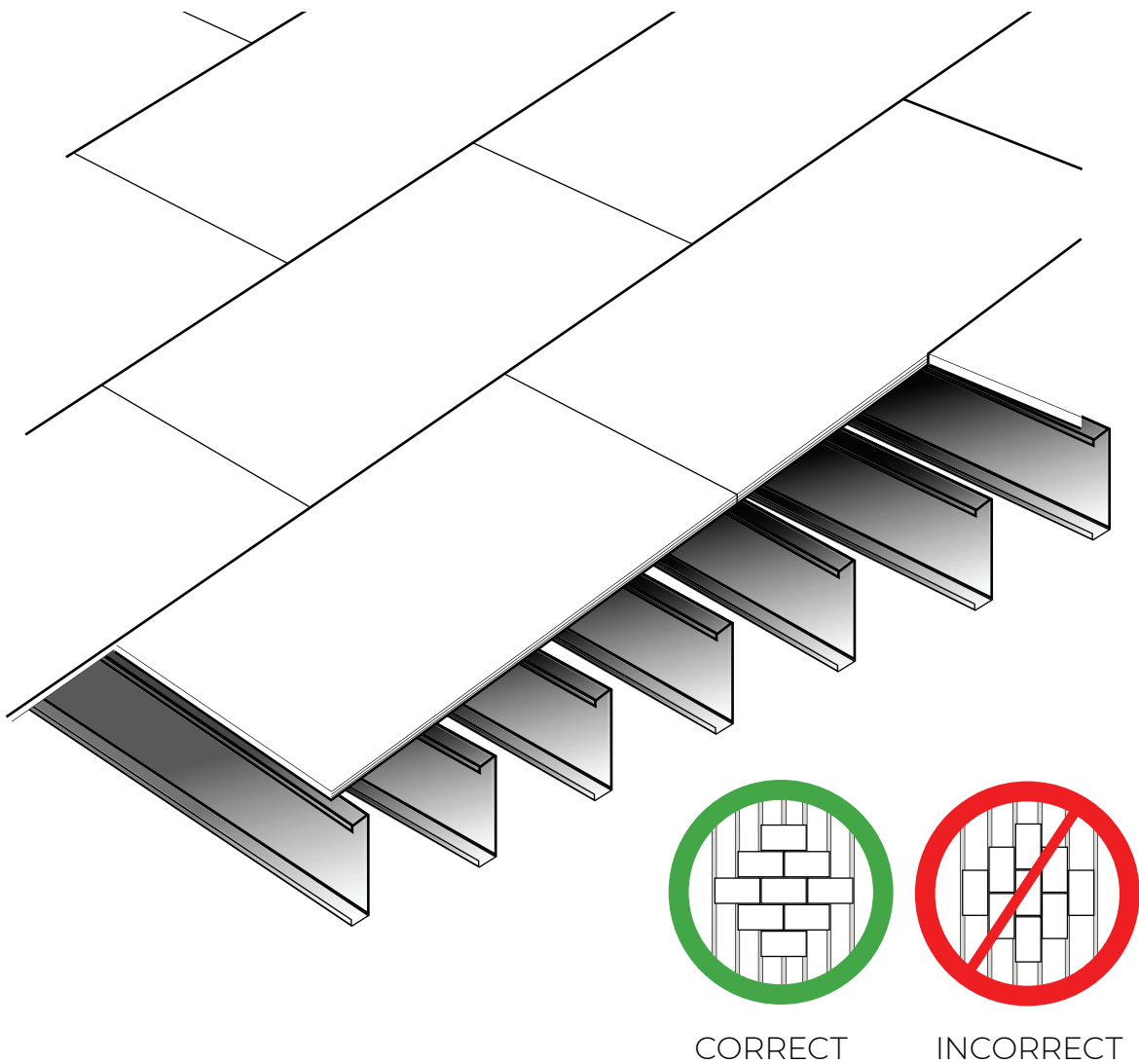
# DRAGONBOARD MGO SUBFLOOR

## FRAMING DIRECTION

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DragonBoard Panels should always lay perpendicular to supporting joists.

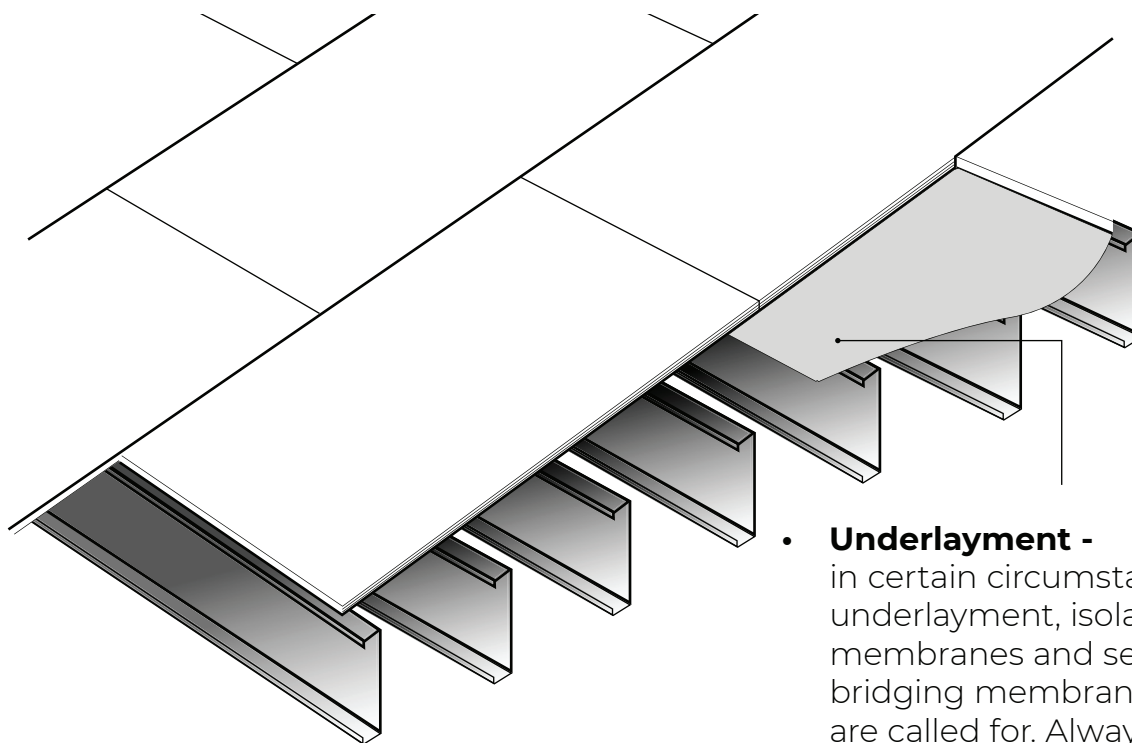


# DRAGONBOARD MGO SUBFLOOR

## ORIENTATION, SEALING & UNDERLAYMENT

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- All panels should be staggered with a 1/16" (1.5mm) gap – the thickness of a penny-.between boards to accommodate movement when attached to cold-formed steel framing and 1/8" when attached to wood.
- **Board Orientation** - DragonBoard is extremely smooth on one side and rough on the other. Both surfaces are working surfaces. The smooth side is ideal for the application of finished flooring such as carpet or resilient flooring. The rough side provides excellent adhesion when applying ceramic tiles, stone, concrete toppings or other decorative materials.
- **Seams** - When laying resilient flooring such as VCT, Vinyl plank or Linoleum over DragonBoard, all seams should be filled with a polyurea or modified epoxy seam filler and shaved or sanded flush to create a uniformly smooth surface to avoid "telegraphing" uneven joints to the wear surface.



- **Underlayment** - in certain circumstances underlayment, isolation membranes and seam bridging membranes are called for. Always follow manufacturer's installation instructions.



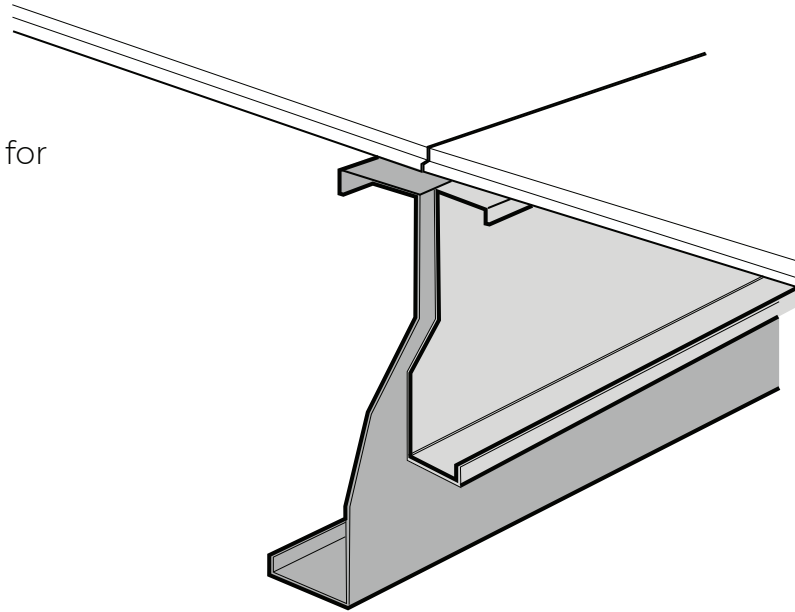
# DRAGONBOARD MGO SUBFLOOR

## PANEL BLOCKING

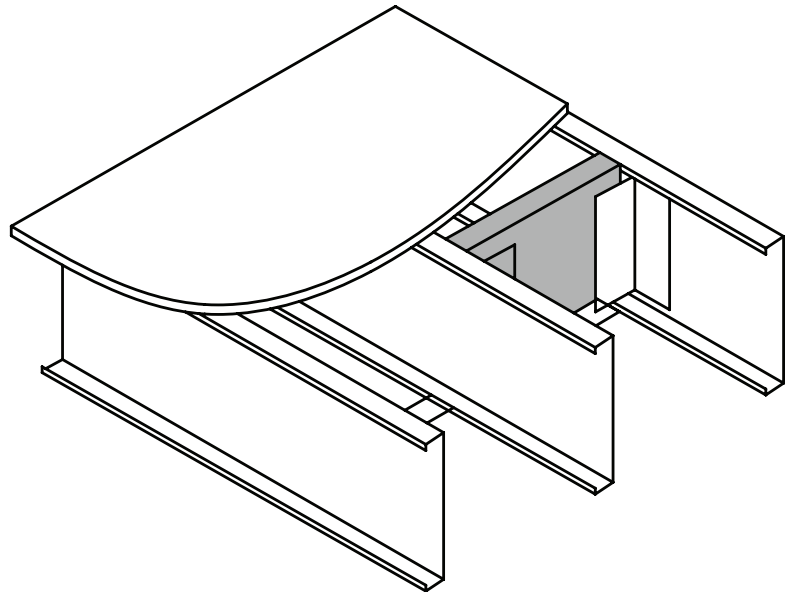
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Edge distance modified for improperly placed joists requiring blocking.



Block edges that are less than 24" wide before DragonBoard panel application.





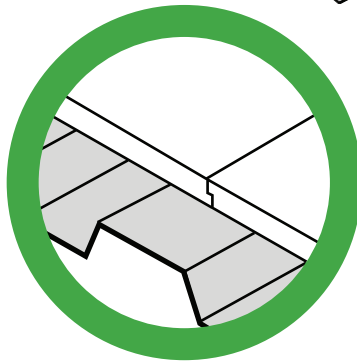
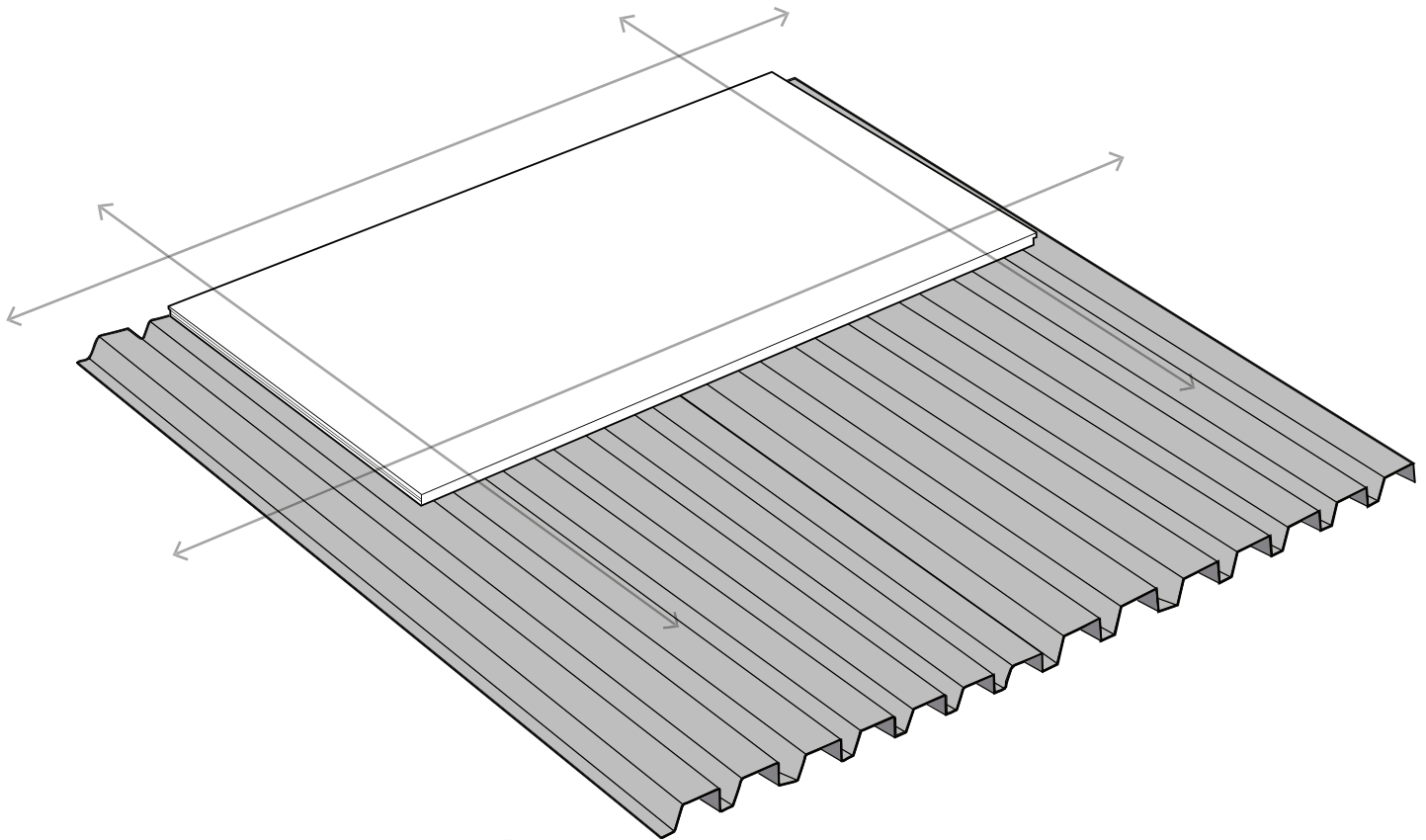
# DRAGONBOARD MGO SUBFLOOR

## FLUTED DECK PANEL LAYOUT

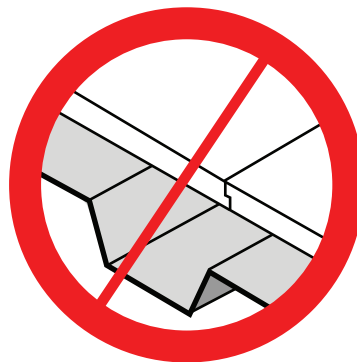
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DragonBoard Shiplap should always lay perpendicular to deck fluting



CORRECT



INCORRECT

# DRAGONBOARD MGO SUBFLOOR

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## WHY CHOOSE DRAGONBOARD?



**DragonBoard is a UL approved MgO subflooring or construction panel that is:**

- Class A fire-rated and load-bearing equal to cement board and poured concrete.
- Freeze-thaw tested for 36 months
- Mold, fungus, insect-free per ASTM G21
- Impact resistant per ASTM D 5628
- NYC approved per MEA
- Silica, Asbestos, and VOC Free
- Sound Transmission Class (STC) up to 59 and impact insulation class (IIC) up to 64 in assembly
- Lighter-weight and substantial cost savings over cement board

### Mineral Components

Dragonboard is manufactured from edible mineral components and water and does not contain hexavalent chromium, asbestos or VOCs.

### Safe for Landfills

DragonBoard scraps and sawdust may be safely buried in landfills without contamination or environmental damage to the land, streams or bodies of water.

### Low Energy Manufacturing

DragonBoard uses a patented low energy manufacturing process. The entire process is conducted at room temperature and scraps are reground and recycled.



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