Storage

- extreme® green® panels should be stored in a cool, dry environment and should remain in the manufacturer’s packaging bearing the brand name and manufacturer’s logo and Listing Number until ready for use.
- extreme® green® panels should be stored on the manufacturer’s pallets off the ground and away from standing water. To protect edges from damage, do not store extreme® green® panels vertically.
- To prevent the risk of injury, do not stack extreme® green® panels higher than 10 feet high.
- Loose storage of extreme® green® panels is not recommended.
- Cover extreme® green® panels with a waterproof material when stored outdoors or on site to protect against weather, direct sunlight, surface contamination, and construction traffic. This will make finishing preparation easier.

Precautions + Safe Handling

- Use work practices that minimize the creation of dust.
- Try to avoid the inhalation of dust wherever possible.
- Wear appropriate personal protective equipment.
- Wash hands after use.
- Observe good industrial hygiene practices.
- Ensure that forklift or similar equipment is rated as capable of lifting and moving loads. Forks should extend completely under the entire load.
- Forks should be extended as wide as practical.
- extreme® green® panels are heavy, awkward loads and pose the risk of severe back injury. Always use proper lifting techniques.
- A minimum of two persons are required when loading or handling extreme® green® panels.
- Hold extreme® green® panels with hands spaced apart to prevent excessive bending/flexing.
- When extreme® green® panel thickness is less than 1/4 in. thick, it is recommended that one carries two panels at the same time.
- Always consult extreme® green® SDS.

Cutting

- A fine tooth handsaw or power saw is recommended to cut extreme® green® panels.
- Support both ends of the board when cutting.
- A utility knife can be used to score and snap extreme® green® panels, thus reducing dust. Always wear approved safety glasses or goggles when cutting extreme® green® panels.
- Always wear an approved dust mask or respirator when cutting, cleaning up or disposing of extreme® green® panels.
- Always use a T-square to mark out cuts.
- Always make rounded or irregular cuts with a hole saw, jigsaw or similar tool. Ensure saws are fitted with the correct blade for the job.
- To perform cut-outs in extreme® green® panels, for plumbing cut-outs, electrical outlets, light switches, etc., carefully measure and mark the location of the opening on the smooth side of the panel before making a cut. If using a jigsaw, drill a starter hole in the corner of the proposed cut-out and start cut from here. Alternatively, cut-outs can be removed using a hole saw, roto-zip, (or equivalent) hand tool.
extreme green® Subflooring Product Overview

- extreme green® subfloor panels are instantly recognizable by their bright white color and have multiple layers of proprietary fiberglass mesh embedded into the panel.
- extreme green® subfloor panels are non-combustible, fire, water, mold and termite resistant.
- They are people safe and contractor friendly and do not off-gas.
- They are non-carcinogenic and produce no toxic dust when cut.
- extreme green® subfloor panels can be used for interior and exterior subflooring applications.
- extreme green® subfloor panels are stronger, lighter and more impact resistant than other sheet building materials.
- extreme green® subfloor panels are specially designed and engineered for added fire-resistance and are significantly more fire-resistant than OSB, plywood, fiber cement and concrete boards.
- extreme green® subfloor panels offer 1, 2 and 2-1/2 hour plus fire-resistance from single layer assemblies, thus saving valuable time and labor during installation and delivering thinner, stronger, lighter floor systems with better acoustical performance.
- extreme green® subfloor panels are installed in a very similar fashion to traditional plywood, OSB and/or fiber cement subfloor panels.
- To ensure a smooth start to your project, determine the materials, quantities needed and the installation method to best suit the job. extreme green® building products offers a variety of extreme green® panel and finishing products for different applications.
- extreme green® panels are a 'one board fits all' building product and is the only panel you need for your building project.
- Always consult local building codes for fire-resistance requirements.

Application Products

Fastening & Framing

- Always use a Code approved powder coated, stainless steel, or yellow zinc coated fiber-cement board or wood subfloor screw, with nibs for improved counter-sinking, to attach extreme green® subfloor panels to wood framing.
- Always use a Code approved powder coated, stainless steel, or yellow zinc coated self-drilling sheathing-to-CFS screw with nibs for improved counter-sinking to attach extreme green® panels to steel framing.
- Wood and steel bugle head gypsum screws are not recommended for any subflooring or decking applications.

<table>
<thead>
<tr>
<th>Thickness</th>
<th>Application</th>
<th>Installation Method</th>
<th>Max Span Spacing</th>
<th>Allowable Load (psf)</th>
<th>Deflection Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4 in. (20mm)</td>
<td>Subflooring</td>
<td>Perpendicular to framing member</td>
<td>16 in. o.c.</td>
<td>298*</td>
<td>L/240</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>298*</td>
<td>L/360</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>298*</td>
<td>L/480</td>
</tr>
<tr>
<td>3/4 in. (20mm)</td>
<td>Subflooring</td>
<td>Perpendicular to framing member</td>
<td>24 in. o.c.</td>
<td>132*</td>
<td>L/240</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>132*</td>
<td>L/360</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>130*</td>
<td>L/480</td>
</tr>
</tbody>
</table>

* Indicates a capacity based on average peak load testing divided by a safety factor of 2.5.
Deflection limits were not the limiting failure mechanism of these loads in the spans listed above.
Values are for panels installed perpendicular to supporting members. Framing members supporting panels must be min. 1-1/2 in. wide.

<table>
<thead>
<tr>
<th>Fastener</th>
<th>Fastener Length</th>
<th>Description</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/4 in. (20mm) thick extreme green® subflooring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. #8 x 1-15/16 in. (49.21mm)</td>
<td>Powder coated, yellow zinc or stainless steel corrosion resistant self-drilling subfloor screw.</td>
<td>extreme green® subflooring to cold-formed steel. Max. Steel Thicknesses: #8 - 16 gauge (54 mil) #10 &amp; #12 - 12 gauge (97 mil)</td>
<td></td>
</tr>
<tr>
<td>Min. #12 x 1-3/4 in. (44.45mm)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. #8 x 2 in. (50.8mm)</td>
<td>Powder coated, yellow zinc or stainless steel subfloor screw.</td>
<td>extreme green® subflooring to wood framing and EWP-ply for multi-ply trusses. Min fastener penetration of 1-1/4 in. is required.</td>
<td></td>
</tr>
<tr>
<td>Min. 6d 2 in. x 0.113 in. (50.8mm)</td>
<td>Powder coated, coated or stainless steel Annular Ring Shank nail.</td>
<td>extreme green® sheathing to wood framing. Stainless steel recommended.</td>
<td></td>
</tr>
</tbody>
</table>
Available Sizes & Dimensions
extreme\textsuperscript{green}\textsuperscript{®} subfloor panels are available in 3/4 in. (20mm) thickness. extreme\textsuperscript{green}\textsuperscript{®} subfloor panels are manufactured in 4 ft. (1220mm) width and 8 ft. (2440mm), 9 ft. (2750mm) and 10 ft. (3050mm) lengths. Other lengths are available by special order. extreme\textsuperscript{green}\textsuperscript{®} subfloor panels are an ideal substrate under any floor type (LVT, Carpet, etc.), and provide a rigid, stiff and quiet floor system due to their unparalleled structural strength, resistance to water and mold, termites and other wood boring insects, impact resistance and fastener holding capacity. extreme\textsuperscript{green}\textsuperscript{®} subfloor panels should be specified where there is concern about construction site exposure to adverse weather, risk of delimitation, warping, cupping or bowing.

Mold Resistance
When tested to ASTM Standard G21, the standard test for a building material’s resistance to mold and/or fungi growth, extreme\textsuperscript{green}\textsuperscript{®} subfloor panels scored a 0/0/0 rating. This essentially means that in a 31 day controlled laboratory test, no mold growth was observed. extreme\textsuperscript{green}\textsuperscript{®} subfloor panels can be considered as mold proof, which few, if any building materials can claim. For further information visit www.extremegreenbp.com.

Strength
extreme\textsuperscript{green}\textsuperscript{®} subfloor panels are manufactured from magnesium oxide cement and have multiple layers of proprietary fiberglass mesh embedded in each panel. This offers unparalleled shear strength in addition to superior compressive strength, which makes it an ideal replacement for OSB, plywood and fiber cement subfloor panels. It also provides a first class bonding surface for all types of floor systems. The proprietary fiberglass mesh found in extreme\textsuperscript{green}\textsuperscript{®} subfloor panels delivers similar structural values in both machine and cross-machine directions. extreme\textsuperscript{green}\textsuperscript{®} subfloor panels actually help to increase the structural integrity of a floor assembly.

Lightweight Gypsum Concrete
extreme\textsuperscript{green}\textsuperscript{®} subfloor panels meet and exceed multifamily acoustical Code requirements. The time consuming and inconvenient practice of pouring lightweight gypsum concrete is no longer needed. This reduces the overall weight of the floor system, eliminates the need for a double bottom plate and regularizes rough opening dimensions, which in turn reduces the overall build cost construction timeline for projects.

Fire-Resistance
extreme\textsuperscript{green}\textsuperscript{®} subfloor panels are non-combustible as described and tested in accordance with ASTM E136 or CAN/ULC S114. They also score a 0 flame spread and 0 smoke developed rating when tested in accordance with ASTM E84 / UL723 / UBC 8-1 / NFPA 255.
extreme\textsuperscript{green}\textsuperscript{®} subfloor panels are included in multiple UL and ULC listings and other designs, which can be found at www.ul.com, or by contacting extreme\textsuperscript{green}\textsuperscript{®} building products.

Using extremegreen sheathing
extreme\textsuperscript{green}\textsuperscript{®} subfloor panels are lighter than other competing cement boards and are much easier to use and install. The panels have been designed and engineered to be installed in a similar fashion to the product that they are replacing. It can be easily cut with a regular circular saw and is strong enough to withstand the abuse often present on construction sites. They are not brittle and can be fastened using screws or nails.

Warranty
extreme\textsuperscript{green}\textsuperscript{®} sheathing is covered by a limited lifetime manufacturer’s warranty against product defect, delamination or deterioration for exposure to adverse weather conditions. Visit www.extremegreenbp.com for further information.

Standards & Code Compliance
extreme\textsuperscript{green}\textsuperscript{®} subfloor panels are manufactured in a strict quality controlled environment with a third party quality assurance program in place, monitored by NTA, Inc., UL and Intertek. Strict quality control procedures ensure that extreme\textsuperscript{green}\textsuperscript{®} subfloor panels are manufactured to the highest possible standard. See:
- www.ntainc.com
- www.ul.com
# extremegreen® Physical Properties

<table>
<thead>
<tr>
<th>Product Comparison</th>
<th>3/4 in. (20mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Width &amp; Tolerances</strong></td>
<td>4 ft. (1220mm)</td>
</tr>
<tr>
<td></td>
<td>+/- 5/64 in. (2mm)</td>
</tr>
<tr>
<td><strong>Lengths &amp; Tolerances</strong></td>
<td>8 ft., 9 ft., 10 ft.</td>
</tr>
<tr>
<td></td>
<td>(1220mm, 12750mm, 3050mm)</td>
</tr>
<tr>
<td></td>
<td>+/- 5/64 in. (2mm)</td>
</tr>
<tr>
<td><strong>Thickness &amp; Tolerances</strong></td>
<td>1/16 in.</td>
</tr>
<tr>
<td></td>
<td>(+/- 1mm)</td>
</tr>
<tr>
<td><strong>Weight (lbs/sf)</strong></td>
<td>4.50</td>
</tr>
<tr>
<td><strong>DOC PS 2 - Average Ultimate Load 16 in. o.c. (psf)</strong></td>
<td>645</td>
</tr>
<tr>
<td><strong>DOC PS 2 - Average Deflection (16 in. o.c. at 100 psf)</strong></td>
<td>0.007</td>
</tr>
<tr>
<td><strong>DOC PS 2 - Average Ultimate Load 24 in. o.c. (psf)</strong></td>
<td>360</td>
</tr>
<tr>
<td><strong>DOC PS 2 - Average Deflection (24 in. o.c. at 100 psf)</strong></td>
<td>0.035</td>
</tr>
<tr>
<td><strong>Average Ultimate Shear Strength (pfl)</strong></td>
<td>1,362</td>
</tr>
<tr>
<td>(10 in. Deep x 16 Gauge Steel Framing 16 in. o.c.)</td>
<td></td>
</tr>
<tr>
<td><strong>Shear Strength - Design Load (pfl)</strong></td>
<td>454</td>
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<tr>
<td>(Safety Factor of 3)</td>
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</tr>
<tr>
<td><strong>Surface Burning Characteristics (ASTM E84 / UL 723)</strong></td>
<td>0/0</td>
</tr>
<tr>
<td><strong>Combustibility (ASTM E136)</strong></td>
<td>Non-Combustible</td>
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<tr>
<td><strong>Fastener Pull Through (psi)</strong></td>
<td>&gt;300</td>
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<tr>
<td><strong>Fastener Lateral Capacity (psi)</strong></td>
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<tr>
<td><strong>Fastener Withdrawal Capacity (psi)</strong></td>
<td>&gt;155</td>
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<tr>
<td><strong>Contains Formaldehyde</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Contains Crystalline Silica</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Contains Fly Ash</strong></td>
<td>No</td>
</tr>
<tr>
<td><strong>Toxin Free</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Water Resistant</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Vapor Permeable</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Mold Resistance (ASTM G21)</strong></td>
<td>0/0/0</td>
</tr>
</tbody>
</table>

**Note:** Unless otherwise stated all values quoted in the above table are design values and have suitable safety factors applied.
Installing extremegreen® Subflooring

General
- extremegreen® subfloor panels must be installed in accordance with instructions contained in this installation guide.
- Install extremegreen® subfloor panels perpendicular to framing, (long dimension perpendicular to studs). extremegreen® panels are available in 8 ft., 9 ft. and 10 ft. lengths.
- Framing width shall not be less than 3-1/2 in. (89mm) wide for wood framing and 1-1/4 in. (32mm) for steel framing.
- Framing members shall not vary more than 1/8 in. (3mm) from the plane of the faces of adjacent framing.
- Install extremegreen® subfloor panels with short panel joints staggered.
- extremegreen® subfloor panels shall not be installed less than 8 in. (203mm) from exposed earth unless an approved method of protection against termites and decay is approved by the local building official.
- extremegreen® subfloor panels used in an exterior application shall be protected by a Code compliant and/or approved water resistive barrier/coating.

Screws
- Install fasteners straight and perpendicular to extremegreen® subfloor panels and joists/trusses.
- Follow installation guidelines in this manual for fastener spacing and patterns.
- Fasteners should be spaced 1/2" from all edges and no closer than 2" from a corner.
- Countersink screws just below the surface of the extremegreen® subfloor panels.
- Do not overdrive screws.
- Start at one corner and work your way to the remaining edges.
- Code approved fasteners should penetrate framing members at least 1 in.
- Min. 2 in. (50.8mm) screws to be used when attaching 3/4 in.(20mm) extremegreen® subfloor panels to wood framing.
- Min. 1-3/4 in. (44.45mm) fasteners to be used when attaching 3/4 in. (20mm) extremegreen® subfloor panels to steel framing.

Nails
- Drive nails in straight and perpendicular to extremegreen® panels and framing members.
- Seat nails so head is countersunk in a shallow dimple formed by final blow of the hammer or nail gun.
- Follow installation guidelines in this manual for fastener spacing and patterns.
- Start at one corner and work your way to the remaining edges.
- Code approved fasteners should penetrate framing members at least 1 in.
- Nails should be spaced a maximum of 6 in. o.c. Min. 2 in. (50.8mm) Ring Shank nails to be used when attaching 3/4 in. (20mm) extremegreen® subfloor panels to wood framing.

Adhesive
- Ensure the proper adhesive is selected for the job.
- Framing must be clean and free from oil, dirt, and contamination.
- Adhesive must be applied in accordance with the manufacturer’s instructions.
- Screws or nails must be used in addition to adhesive.

Estimating Quantities
- Measure the length and breadth of the floor area to be covered with extremegreen® panels and multiply these values to determine the square footage.
- Now subtract the square footage of all large openings such as stairwells or stair cores.
- Divide the total square footage by 32 to ascertain how many extremegreen® panels are required and ensure sufficient contingency is allowed for cuts and irregularities.

Best Practices
- Use manufacturer’s recommended adhesive on all framing and apply per joist/truss manufacturer’s recommendations.
- Always follow adhesive manufacturer’s recommendations for framing material type, i.e. wood or metal.
- Ensure that extremegreen® subfloor panels are flush against the top of the joist/truss surface to which they are being fastened to.
- Joists/trusses should be square and level to guarantee a smooth and level floor installation. Replace warped, bowed or crooked joists/trusses.
extremegreen® Floor Systems

2-1/2 Hour Fire-Resistant Steel Floor System

1 Hour Fire-Resistant Open Web Floor System
UL 263 Design No. G601: 1, 2 & 2-1/2 Hour Fire-Resistant Assembly

To Steel C-Channel Joists

- **Safety** - Ensure the flooring framing system is properly and securely fastened to the supporting walls, beams, girders or other supports and is properly braced against rollover during the floor panel installation. See the joist/truss manufacturer installation instructions for additional information.

- **Lifting** - extreme® Building Products recommends using the buddy system to lift and carry extreme® panels to the installation site. Ensure you have secure footing, bend your knees whilst keeping your head up and back straight and push up with your legs to lift the panel. Breathe steadily whilst lifting. Lower the load together by bending your knees to lower the panels to the floor.

- **Flooring System** - Nominal 3/4 in. (20mm) thick extreme® shiplap edge panels to be installed with long dimension of panels perpendicular to joists with end joints staggered a min of 4 ft. and centered over the joists.

- **Panels** - to be secured to steel joists with min. 2-1/4 in. long self-drilling, self-countersinking, bugle head steel screws and spaced max. 12 in. o.c. in the field and 8 in. o.c. along the end joints and around the perimeter.

- **All screws to be spaced 1/2 in. from each joint edge and no closer than 2 in. from a corner.**

- **Structural Steel Members** - should be min. 10 in. deep 16 ga MarinoWare JoistRite, or equivalent steel joists and spaced max. 24 in. o.c.

- At joist rim splices bearing on supports, joists rims should be connected using an overlapping section of a 12 in. long splice plate (a joist piece), with four 3/4 in. long No. 10 self-drilling steel Tek screws to each rim piece.

- **Angle Clips** - 2-1/16 x 4-1/8 x 13/16 x 9-7/8 in., No 16 ga clips used to fasten joists to joist rim track. 4-1/8 in. side of clip placed against outside web of joists and 2-1/16 in. side placed against joist rim track. Each side secured with three #10-3/4 in. Tek screws. 1-1/2 x 4 x 8 in., No. 16 ga clips used to fasten joist bridging with clip located on the web/flange side of the joist.

- **Clip fastened with two #10-3/4 in. TEK screws per leg per clip. 1-1/2 x 1-1/2 x 2-1/2 in., No 16 ga clips used to fasten joist bridging with clip located on the web/non-flange side of the joist. Clip fastened with two #10-3/4 in. TEK screws per leg per clip.**

- **Batts and Blankets** - 3-1/2 in. thick glass fiber batt insulation to be draped over the resilient channels or suspension system grid. Any glass fiber batt insulation bearing the UL Classification Marking for Surface Burning Characteristics having a flame spread index of 25 or less and a smoke developed index of 50 or less may be used. See Batts and Blankets (BKNV) category in the Building Materials Directory for names of manufacturers.

- **Ceiling System** - Nominal 5/8 in. (16mm) thick extreme® tapered edge panels to be installed as the ceiling element of the floor system, perpendicular to resilient channels with end joints staggered a minimum of 2 ft. side joints of all panels shall be a minimum of 7 in. From the edge of joists. Ceiling panels to be secured to resilient channels with #6 1-1/4 in. Long coarse thread drywall screws spaced a maximum of 6 in. o.c. in the field with screws located 1 in. From all panel side edges and 3 in. from panel end joints.

- **For 1-hour rating** - As an Alternate, one layer of nom 5/8 in. thick, 48 in. wide gypsum panels. Base layer installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1-1/4 in. long Type S bugle head screws spaced 12 in. o.c. in both the field and the perimeter, and 1-1/2 in. from side edges of the board.

- **For 2-hour rating** - As an Alternate, two layers of nom 5/8 in. thick, 48 in. wide gypsum panels. Base layer installed with long dimension perpendicular to resilient channels. Gypsum panels secured with 1-1/4 in. long Type S bugle head screws spaced 12 in. o.c. in both the field and the perimeter, and 1-1/2 in. from side edges of the board. Face layer installed with long dimension perpendicular to resilient channels with side joints offset 24 in. from base layer. Gypsum panels secured to resilient channels with 1-5/8 in. long Type S buglehead screws spaced 8 in. o.c., and 1-1/2 in. from side edges of the board and 3 in. from the end joints. At the butt joint 1-1/2 in. long Type G screws to be installed to attach face layer to base layer. Type G screws spaced 8 in. o.c. and 1-1/2 in. from side edges of the board. Butt joints of face panels staggered a minimum of 12 in. from butt joints of base layer.

- When extreme® panels have been installed, the manufacturer recommends laying a sheet of plywood or OSB over all high traffic areas to protect the subfloor surface during construction. If excessive weights are being carried on point loads, such as ladders, the manufacturer recommends that a sheet of plywood or OSB is load under any point loads.

- **Resilient Channels** - Min 25 ga galvanized steel resilient channels 1/2 in. deep, spaced max 12 in. o.c. and perpendicular to joists. Channel splices located beneath joists and overlapped 4 ft.

- **Channels should be secured to each joist with one 1/2 in. long Type S-12 low profile steel screw. Two channels spaced 6 in. o.c. oriented opposite each extreme® ceiling panel end joint. Additional channels shall extend min 6 in. beyond each side edge of board.**

- Fill all joints, seams and screw heads with extreme® Fire-Set 60 Fire-Resistant Setting Compound, or equivalent, then apply FibaFuse™ tape, or equivalent, while mud is still wet, then smear and smooth.

- **Setting Compound** - Allow extreme® Fire-Set 60 Fire-Resistant Setting Compound to dry, then gently sand until smooth and flush with the surface of the board.

- Allow extreme® Fire-Set 60 Fire-Resistant Setting Compound to dry completely before applying primer or paint.
UL 263 Design No. G601: 1, 2 & 2-1/2 Hour Fire-Resistant Assembly

To Steel C-Channel Joists

Key:
1 3/4 in. (20mm) extremegreen® Subfloor Panel
2 Min 10 in. 16 Gauge C-Channel Steel Joists
3 Glass Fiber Batt or Mineral Wool Insulation
4 25 Gauge Open Leg Resilient Channel
5 1 Layer 5/8 in. (15.9mm) Type C Gypsum Panel

Acoustical Performance: STC 54; IIC 30

1 Hour Assembly - Type C Gypsum Ceiling

Key:
1 3/4 in. (20mm) extremegreen® Subfloor Panel
2 2 in. x 4 in. Open Web Wood Truss
3 Glass Fiber Batt or Mineral Wool Insulation
4 25 Gauge Open Leg Resilient Channel
5 2 Layers 5/8 in. (15.9mm) Type C Gypsum Panel

Acoustical Performance: Est. STC >54; IIC >30*
* Assembly not tested.

2 Hour Assembly - Type C Gypsum Ceiling

Key:
1 3/4 in. (20mm) extremegreen® Subfloor Panel
2 2 in. x 4 in. Open Web Wood Truss
3 Glass Fiber Batt or Mineral Wool Insulation
4 25 Gauge Open Leg Resilient Channel
5 5/8 in. (16mm) extremegreen® Wallboard Panel

Acoustical Performance: STC 55; IIC 29

2 1/2 Hour Assembly - extremegreen® Ceiling
UL 263 Design No. L601: 1 Hour Fire-Resistant Assembly

To Open Web Wood Trusses

- **Safety & Lifting** - See instructions in steel assembly.

- **Flooring System** - Nominal 3/4 in. (20mm) thick extremegreen® shiplap edge panels to be installed with long dimension perpendicular to trusses with end joints staggered a minimum of 4’ on adjacent panel runs and with short dimension of panels centered over the joists. Plan the installation by starting at one corner of the floor framing. Panels should span two or more joists with long dimension perpendicular to the floor framing. All 4” (short) edges must land on a joist/truss.

- **Adhesive** - Always use a polyurethane or solvent-based subfloor adhesive that confirms to industry standard APA, AFG-01 or ASTM D3498 and follow manufacturer’s recommendations when installing extremegreen® panels.

- Apply a generous 1/4” bead of subfloor adhesive to the top chord of the joists/trusses and to all shiplap edges prior to installing extremegreen® panels. This will reduce the possibility of deflection and increase the overall strength and stiffness of the floor system. The adhesive fills minor framing irregularities and provides a tight, even bond. Too much adhesive applied to the shiplap edges will cause squeeze-out. Wipe or scrape excess glue off the panels with a rag or putty knife before the adhesive sets.

- Apply two beads of adhesive to joists where panel ends meet.

- Apply only enough adhesive to lay one or two panels at a time to keep the adhesive from curing or skinning. If a ‘skin’ forms on the glue, remove it and reapply.

- Do not install extremegreen® floor panels at temperatures below 20 degrees or above 100 degrees. Adhesive performance could be affected outside of these temperature ranges. Adhesive should come to room temperature before use. Always follow the adhesive manufacturer’s recommended guidelines.

- Immediately after applying the adhesive, lower the first extremegreen® panel into place, making sure the panel is square on the joists/trusses and that the panel is laid smooth side up.

- Always use code-approved fasteners that penetrate a minimum of 1 in. into the framing members. extremegreen® panels should ideally be fastened to wood trusses with either 2-1/2 in. long self-countersinking deck screws or similar, (yellow zinc or powder coated), and spaced max. 12 in. o.c. in the field and 8 in. o.c. along the end joints and around the perimeter; or, extremegreen® panels should be secured to wood trusses with minimum 2 in. x 0.113 in. Ring Shank nails spaced a maximum of 6 in. o.c. in the field and on the perimeter along the end joints and around the perimeter.

- To ensure superior building performance, the manufacturer recommends the use of galvanized nails to reduce the incidence of rust and corrosion during construction site exposure.

- The correct and appropriate choice of fastener is key and specific to the application. The manufacturer recommends the use of screws over nails as superior structural performance is achieved. The use if screws however, is not mandatory and this decision rests with the installer and their engineer.

- Ensure that all extremegreen® panels are pressed firmly and tightly to the top chord of the truss prior to nailing or screwing the panel to the truss. This will help to ensure that the panel is securely fastened to the truss and will help to eliminate any possibility of flex mid span between the trusses. This is particularly important when the truss span is greater than 16 in. o.c.

- All screws and nails must be spaced minimum 1/2 in. from each joint edge and and no closer than 2 in. from a corner.

- **Trusses** - Should be parallel chord open web wood trusses, spaced a maximum of 24 in. o.c. and fabricated from nominal 2 in. x 4 in. Lumber, with the lumber oriented vertically or horizontally.

- Minimum truss depth is 16 in., with truss members secured together with minimum 20 gauge galvanized steel plates.

- When extremegreen® panels have been installed, the manufacturer recommends laying a sheet of plywood or OSB over all high traffic areas to protect the subfloor surface during construction. If excessive weights are being carried on point loads, such as ladders, the manufacturer recommends that a sheet of plywood or OSB is load under any point loads.

- **Resilient Channels** - Formed from minimum 25 MSG galvanized steel, 1/2 in. deep spaced 12 in. o.c. and installed on the underside of and perpendicular to trusses. Resilient Channels should be secured to the underside of each truss with #6 1-1/4 in. long coarse thread drywall screws. Resilient Channels must be overlapped 4 in. At all splices under the trusses. Additional Resilient Channels must be installed 3 in. From a all board end joints and secures to adjacent trusses.

- **Batts and Blankets** - Should be minimum 3-1/2 in. thick, minimum 0.62 pdf glass fiber batt insulation to be draped over the resilient channels or suspension system grid. Any glass fiber batt insulation bearing the UL Classification Marking for Surface Burning Characteristics or Fire Resistance may be used. See Batts and Blankets (BKNV or BXJZ) category in the UL Fire Resistance Directory for names of manufacturers.

- **Ceiling System** - Nominal 1/2 in. (12mm) thick extremegreen® tapered edge panels to be installed as the ceiling element of the floor system, perpendicular to resilient channels with end joints staggered a minimum of 2 ft. side joints of all panels shall be a minimum of 7 in. From the edge of trusses. Ceiling panels to be secured to resilient channels with #6 1-1/4 in. Long coarse thread drywall screws spaced a maximum of 6 in. o.c. in the field with screws located 1 in. From all panel side edges and 3 in. from panel end joints.

- As an alternate, one layer of nominal 5/8” thick Type C gypsum board, installed with long dimension perpendicular to resilient channels with end joints staggered a minimum of 2 ft. Side joints of panel shall be a minimum of 7 in. from edge of trusses. Gypsum board to be secured with 1 in. long No. 6 Type S bugle head steel screws spaced 8 in. o.c. and located a minimum of 1 in. from side joints and 3 in. from panel end joints.

- **Setting Compound & Finishing** - Follow instructions as detailed in steel assembly.
UL 263 Design No. L601: 1 Hour Fire-Resistant Assembly
To Open Web Wood Trusses

Key:
1 3/4 in. (20mm) extremegreen® Subfloor Panels
2 2 in. x 4 in. Open Web Wood Truss
3 Glass Fiber Batt or Mineral Wool Insulation
4 25 Gauge Open Leg Resilient Channel
5 1/2 in. (12mm) extremegreen® Wallboard Panels

Acoustical Performance: STC 58; IIC 39

Key:
1 3/4 in. (20mm) extremegreen® Subfloor Panels
2 2 in. x 4 in. Open Web Wood Truss
3 Glass Fiber Batt or Mineral Wool Insulation
4 25 Gauge Open Leg Resilient Channel
5 5/8 in. (15.9mm) Type C Gypsum Panels

Acoustical Performance: STC 57; IIC 36
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