

Technical Tip

Installing AdvanTech® Flooring Over Light Gage Metal Framing


Light gage metal framing is used in many different aspects of today's construction industry. Though it's seen more prevalent in light commercial buildings, it is growing in the residential industry as well. For this reason, the use of wood structural panels like AdvanTech® subflooring and sheathing is being used in conjunction with light gage joists or studs. There are two types of fasteners that are recommended when attaching wood structural panels to light gage framing: screws and pins.

The point types of the screws that are recommended are self-tapping or self drilling. A bugle head or flat head screw is recommended so that the screws are allowed to be installed flush or countersunk with the AdvanTech subflooring. A minimum of 3 threads should be exposed through the light gage framing beneath the AdvanTech subfloor panels. Hex head screws should not be used to install AdvanTech over light gage framing as these screw head types will not install flush with the AdvanTech subfloor panels which could interfere with finished floor covering installation. Consult with the light gage metal manufacturer for recommendations on the size and point style of the screws to be used when attaching wood structural panels. The other type of fastener that is recommended for installing AdvanTech over light gage framing is steel pins. Steel pins contain specially designed grooves that spiral down the shaft called knurls. The knurls help to penetrate and grip the light gage steel framing. Steel pins are installed with pneumatic air guns similar to those used for typical framing nails. We recommend following any light gage metal manufacturers recommendations on the size, type, and length of steel pins for installing wood structural panels.

To achieve optimum performance, we recommend applying a continuous bead of adhesive to the light gage metal joists prior to installing the AdvanTech panels. Metal can expand and contract more than wood, so it is recommended that you use polyurethane adhesives when installing AdvanTech over light gage metal framing.

The following steps outline the installation of 23/32" AdvanTech subfloor panels over light gage framing.

- Joists should be spaced a maximum 24" o.c.
- Minimum panel thickness is 23/32".
- Install panels with long dimension perpendicular to supports.
- Apply a continuous ¼" bead of construction adhesive to joists. Apply a small amount of adhesive to groove prior to matching tongue of adjacent panel. Use only polyurethane adhesives which conform to industry standard AFG-01.
- Use the recommended size fastener by the light gage framing manufacturer for attaching wood structural panels. If using screws, the fastener should penetrate the framing member so as to engage at least 3 threads. Steel pins should be installed as to penetrate the framing a min. ¼".
- Provide 1/8" expansion gap at 4-foot ends. T&G joint is self-spacing.

 FORCING T&G EDGES TO FIT TIGHTLY TOGETHER CAN DAMAGE THE PANELS AND VOID THE WARRANTY. T&G EDGES ARE DESIGNED TO FIT TOGETHER EASILY WHILE PROVIDING THE INDUSTRY STANDARD 1/8" GAP BETWEEN PANELS.



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