



USG STRUCTURAL PANEL CONCRETE SUBFLOOR

AUDITORIUM/THEATER APPLICATION

- Three easy steps: lay, fasten, finish
- No pouring, no setting, no curing
- An alternative to poured concrete for noncombustible auditoriums meeting latest active ASTM standard E136
- A complete dry application
- Mold-, moisture- and termite-resistant
- Easily transported into building/fits in an elevator
- Fast installation/dimensionally stable/single trade installation

TYPICAL APPLICATIONS

• Classrooms	• Corporate Training Rooms	(1) Floor Finish: Follow the contract documents and the floor finish manufacturer's recommendations for the application of finished flooring. Note that most floor finishes will require an underlayment. Before the application of floor finish materials, ensure that all panels are properly fastened, with the fastener head driven flush or slightly below the surface of the panels.
• School Auditoriums	• Music Halls	
• Movie Theaters	• Performance Stages	
		(2) Storage, traffic and equipment might be limited based on the concentrated load limitation of USG Structural Panel Concrete Subfloor. A qualified architect or engineer should review and approve calculations, framing and fastener spacing for all projects.

TEST DATA

Physical and Mechanical Properties	Test Standard	Approximate Values Standard (Metric)
Concentrated load	ASTM E661	550 lb. (2.45 kN) static 0.108 in. (2.7 mm) max. deflection @ 200 lb. (0.89 kN)
Mold resistance	ASTM D3273, ASTM G21	10, 0
Weight (3/4 in. [19 mm] thickness)	ASTM D1037	5.3 lb./ft. ² (26 kg/m ²)
Water Absorption ^a	ASTM C1185, Sec. 5.2.3.1	<15 %
Noncombustibility	ASTM E136 (unmodified) CAN/ULC-S114	Passed Passed
Surface-burning characteristics (flame spread/smoke developed)	ASTM E84, CAN/ULC-S102	0/0
Termite resistance	AWPA Standard E1-13	9.8
Low VOC emissions	CDPH/EHLB/Standard Method V1.1-2010 ^b	Compliant

(a) Absorption Measured from equilibrium conditioning followed by immersion in water for 48 hours.

(b) Reference Standard: California Department of Public Health CDPH/EHLB/Standard Method Version 1.1, 2010 (Emission testing method for CA Specification 01350).

LOAD TABLE

The following table represents the load-carrying capacity of USG Structural Panel Concrete Subfloors. For the most up-to-date load tables, see the Progressive Engineering Inc. Product Evaluation Report [PER-13067](#). For technical questions, email usgstructural@usg.com. **A qualified architect or engineer should review and approve calculations, framing and fastener spacing for all projects.**

Ultimate Uniform Load for USG Structural Panel Concrete Subfloor			
Joist Spacing - Inches (millimeters)	12 in. (305 mm)	16 in. (406 mm)	24 in. (610 mm)
Capacity - psf (kPa)	1,320 psf (63.2 kPa)	744 psf (35.6 kPa)	330 psf (15.8 kPa)

For SI: 1 inch = 25.4 mm, 1 psf = 47.88 Pa.

(1) **Ultimate Load Values have no safety factor included.**

(2) Two framing spans minimum per panel piece.

(3) Ultimate Uniform Load Table for general reference only.

(4) Ultimate Uniform Load Values are given by engineer analysis. For complete load capacities, consult Progressive Engineering Inc. Product Evaluation Report [PER-13067](#).

STRUCTURAL FASTENERS

Reference [USG Structural Panel Recommended Fasteners \(SCP95\)](#) for current fastener information. Visit www.usgscp95.com.

General Note: In accordance with [PER-13067](#) for Subfloor, the minimum screw pattern is 6 in. (153 mm) o.c. along the perimeter of the panels and 12 in. (305 mm) o.c. in the field of the panels. Do not use a larger size screw unless specified by the structural engineer.

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**MSRP based upon full truckload delivered to jobsite:
Subfloor: \$4.50/sf**

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PRODUCT INFORMATION

See usg.com for the most up-to-date product information.

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SAFETY FIRST!

Follow good safety/industrial hygiene practices during installation. Wear appropriate personal protective equipment. Read SDS and literature before specification and installation.