3/4" STRUCTURAL SUBFLOOR COMPARISON

DragonBoard™ MAG X-24 vs. USG Structo-Crete® 3/4" Panel

MAG X-24 Same 3/4" Floor. Same 24” o.c. Framing. Approximately 15% Lighter.

A head to head of two 3/4" structural subfloor panels. Both fasten directly to steel or wood framing at up to 24” o.c., install by the framing crew, and take gypcrete and its cure time off the schedule. The difference is the material: MAG X-24 is magnesium oxide, Structo-Crete is cement, and every square foot of cement panel carries more weight into the building.

SIDE BY SIDE COMPARISON

Characteristics	DragonBoard MAG X-24 (18mm)	USG Structo-Crete 3/4" Panel
Nominal thickness	3/4" nominal (18mm)	3/4" (19mm)
Panel type	Magnesium oxide (MgO) structural panel	Cement (concrete) structural panel
Weight	4.53 lbs./SF	5.3 lbs./SF
Weight per 10,000 SF of floor	45,300 lbs.	53,000 lbs.
Weight per panel	Approx. 145 lbs.	Approx. 170 lbs.
Panels per pallet	22 (704 SF), 3,190 lbs.	20 (640 SF), approx. 3,400 lbs.
Framing spacing	16”, 19.2”, or 24” o.c.*	Up to 24” o.c.
Framing	Wood or steel trusses and joists	Cold formed steel, red iron, or wood
Fire rated floor ceiling designs	UL G575 (1 and 2 hour, CFS) UL L583 (1 hour, wood)	UL G and H series designs, 1 to 3 hour
Panel size & edge detail	4’ Square Edge (SE) x 8’ Shiplap (SL)	4’ x 8’ Tongue & Groove (TG) or Square Edge (SE)
Cure time	None	None
Installed by	Framing crew, standard tools	Framing crew; USG specifies dust collection or water spray when cutting

WHAT THE DIFFERENCE MEANS ON THE JOB

- **DEAD LOAD.** At 4.53 vs. 5.3 lbs./SF, every 10,000 SF of floor carries 7,700 lbs. less panel weight. On a five over one, that difference repeats on every level and travels down through the framing, columns, and foundation.
- **HANDLING AND STAGING.** Each sheet is about 25 lbs. lighter to carry and set. Each pallet holds 22 panels instead of 20, so 10% more floor arrives per pallet at a lower pallet weight on open framing and hoisting equipment.
- **SAME WIDE SPAN.** MAG X-24 is rated at 16”, 19.2”, and 24” o.c., so the floor opens to 24” framing without moving to the heavier panel.

Planning Your Next Project? Request Information Today.

Explore DragonBoard MgO subfloor and underlayment solutions. Contact our team for product specifications, fire-rated assembly details, and technical support.

Kevin W. Engemann | kengemann@dragonboard.com | (732) 662-6275 | www.dragonboard.com

** MAG X-24 values at 19.2 and 24” on center are preliminary engineering values per Intertek Report No. 250218008SHF-002. Sources: DragonBoard MAG X-24 Product Submittal Sheet REV08242026. USG Structo-Crete 3/4" Structural Panels Submittal Sheet SCP281075 rev. 11-24; ICC-ES Evaluation Report ESR-1792. Floor and pallet figures calculated from published weights and counts. STRUCTO-CRETE is a trademark of USG Corporation. Fire ratings apply only within the referenced UL design. Confirm current listings at UL Product iQ and with the designer of record and AHJ.*