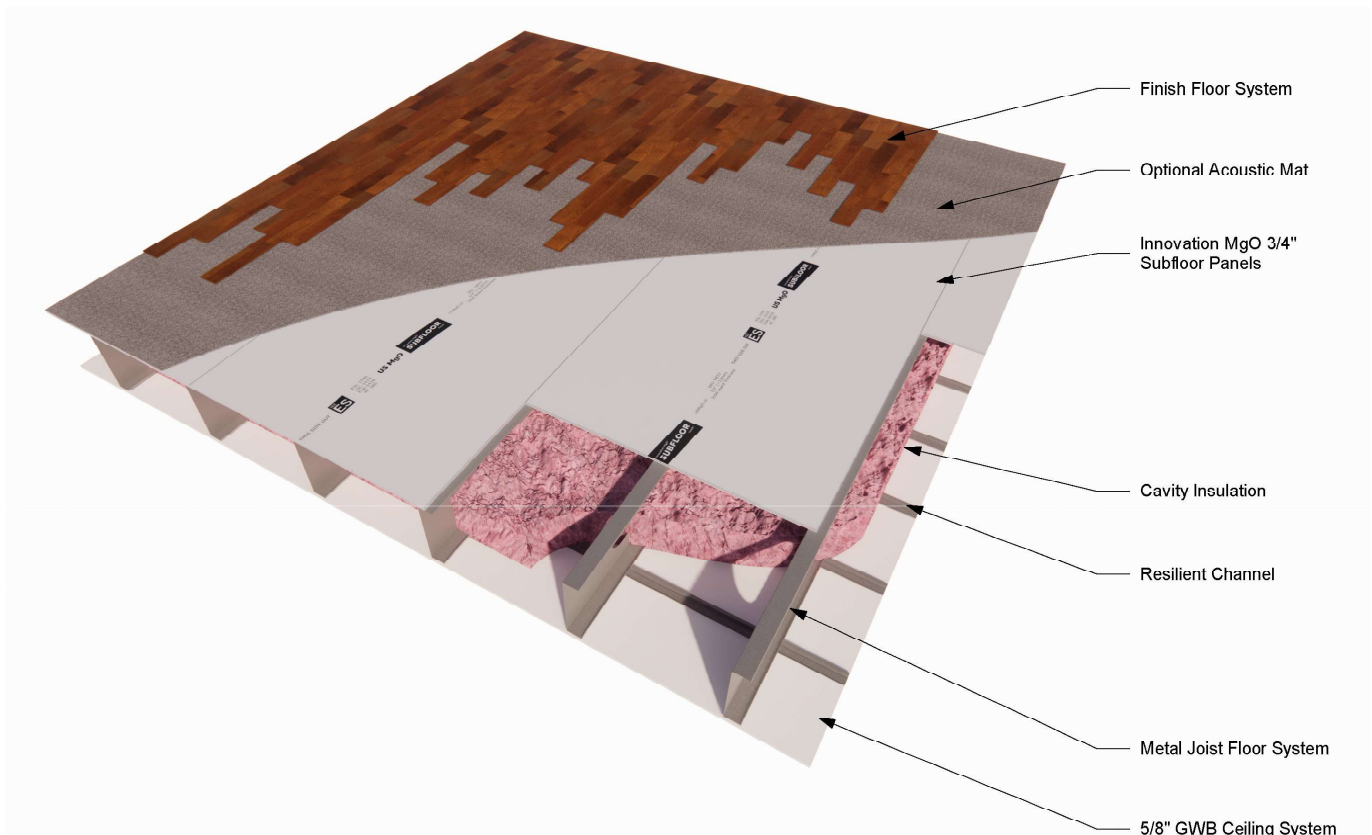


# 3/4" SUBFLOOR PANELS

**Innovation MgO 3/4" Subfloor Panels** provide structural support and fire resistance in 3/4" panels for subfloor use in commercial and multifamily buildings. Unlike fire-retardant-treated wood (FRTW) sheets, Innovation MgO Subfloor Panels will char, not burn, and maintain their structural integrity when exposed to fire.

Panels may be used for both fire resistance and structural strength on their own in subfloor and underlayment applications, unlike wood and gypsum-based products that require multiple layers and added thickness to achieve the same results.

In a fire event, panels absorb large amounts of heat, contributing to a delay in fire and smoke spread. Innovation MgO 3/4" Subfloor Panels provide occupants and emergency personnel with additional time to evacuate and perform life-saving rescues in the event of a fire event.



# 3/4" SUBFLOOR PANELS

Physical Properties			
<b>Material Composition</b>	Magnesium Oxychloride (MOC) Cement	<b>Thickness</b>	Nominal 3/4" (19mm)
<b>Weight (lbs.) (sf)</b>	±155 lbs. (4.8)	<b>Thickness Deviation (ASTM C1185)</b>	< ± 1/16 in. (1.6mm)
<b>Available Sizes</b>	Nominal 48 in. (1220mm) x 96 in. (2440mm) x 3/4 in. (19mm)	<b>Length, Width, and Diagonal Deviation (ASTM C1185)</b>	< ± 1/8 in. (3.2mm)
<b>Density</b>	≥ 1.09 g/cm <sup>3</sup>	<b>Unprotected Exposure</b>	180 days
<b>Test Name</b>	<b>Test Method</b>	<b>Results</b>	<b>More Info / Minimum Acceptance Criteria</b>
Code Acceptance			
<b>Building Types</b>	2018 and 2021 IBC and IRC; 2023 FBC; 2022 CBC and CRC; 2023 LABC and LARC	All Building Types (I, II, III, IV, V)	
<b>Code Evaluations</b>	ASTM E119: Fire Tests of Building Construction and Materials ASTM E2768: Extended Duration Surface Burning Characteristics of Building Materials		<a href="#">ESL-1610</a> <a href="#">ESL-1596</a>
Fire & Thermal Resistance Properties			
<b>Flame and Smoke Development</b>	ASTM E84 ASTM E2768	Flame Spread ≤ 10; Smoke Developed ≤ 25 PASS	
<b>Combustibility</b>	ASTM E136-19 Method A	PASS, Noncombustible	
<b>Fire-Rated Floor Assemblies</b>	ASTM E119	Multiple 1 & 2-hour fire-rated assemblies available	<a href="#">ESL-1610</a>
Structural Properties			
<b>Allowable Joist Spacing</b>	ASTM E330	L/480 > 133 psf	Up to 24" span
<b>Fastener Holding</b>	ASTM D1761	See Specification Guide	
<b>Compression Indentation</b>	ASTM D2394	0.004 in.	Deformation at 1250 psi / Requirement to be less than 0.05 in.
<b>Flexural Strength (Machine / Cross Direction)</b>	ASTM C1185	Dry: 2,855 MD / 3,410 XD Wet: 2,980 MD / 3,049 XD	580 psi (4000 kPa) min average acceptance for both wet and dry
<b>Humidified Deflection</b>	ASTM C473	1/8 in.	48 hours at 90F and 90% RH / Required to be less than 1.25 in.
<b>Falling Ball Impact</b>	ASTM D1037	No damage to top or bottom from a 12" drop	
Fastener & Adhesion Properties			
<b>Dry-Set Cement Shear Bond Strength</b>	ANSI A118.1/A118.4	86 psi	Min shear bond strength at 7-day curing of 50 psi
<b>Latex Cement Shear Bond Strength</b>	ANSI A118.1/A118.4	307 psi	Min shear bond strength at 7-day curing of 50 psi
<b>Fastener Withdrawal</b>	ASTM D1037	> 350 lbs. (max force)	#10-13 Pancake Head Screw
<b>Nail Head Pull-Through</b>	ASTM D1037	> 618 lbf	0.121 x 3" Roofing Nail - Resistance of 90 lbf
Moisture Properties			
<b>Moisture Absorption</b>	ASTM C1185	≤ 20%	48 Hour Submersion
<b>Moisture Content</b>	ASTM D4442	≤ 6.4%	
<b>Water Vapor Permeability</b>	ASTM E96 Water Method	11.5 perms	
<b>Moisture Movement Test</b>	ASTM C1185	0.06% Machine Direction 0.11% Cross Direction	Increase of chamber from 30% Relative Humidity to 90% measured in both machine and cross direction