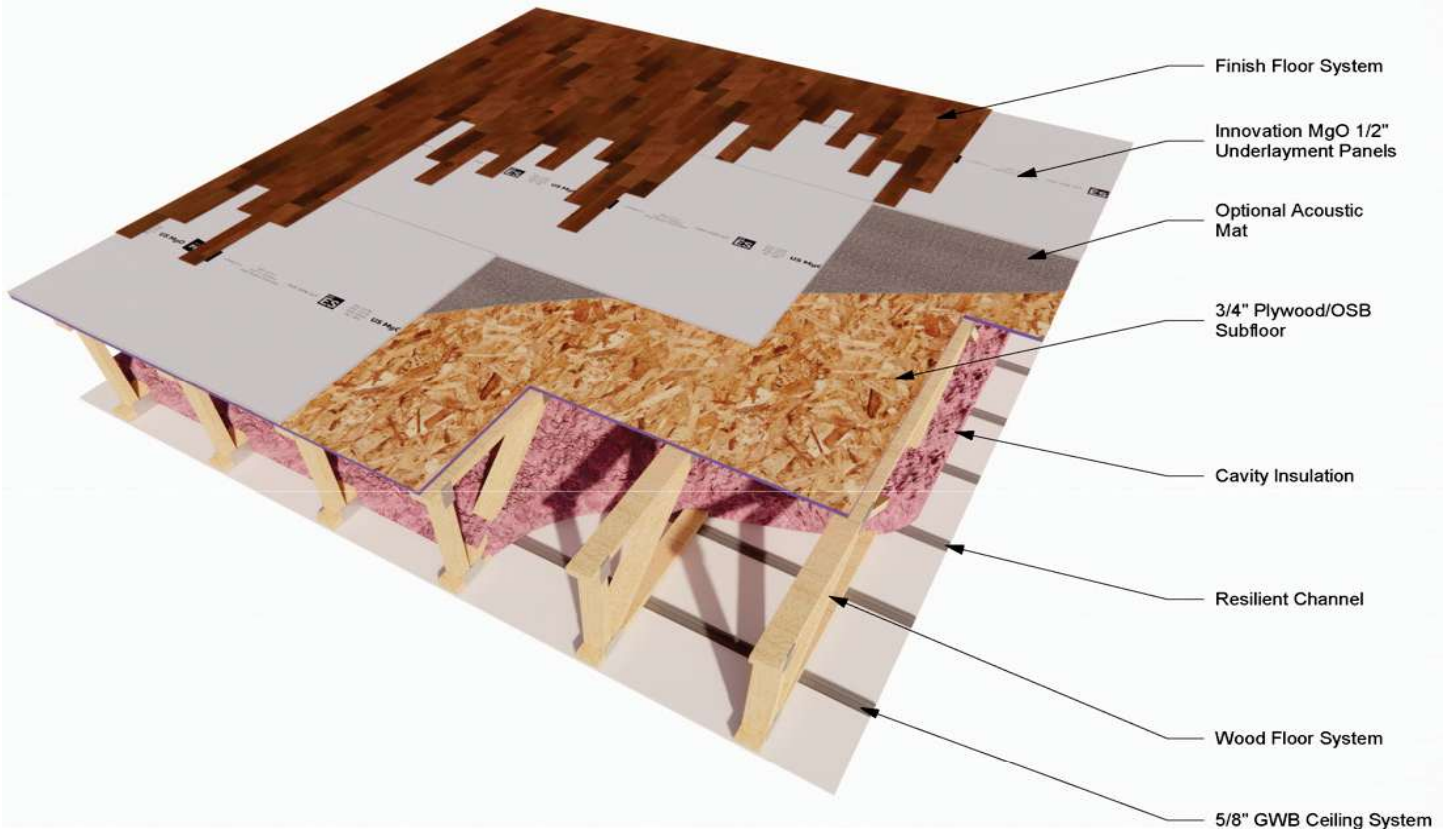
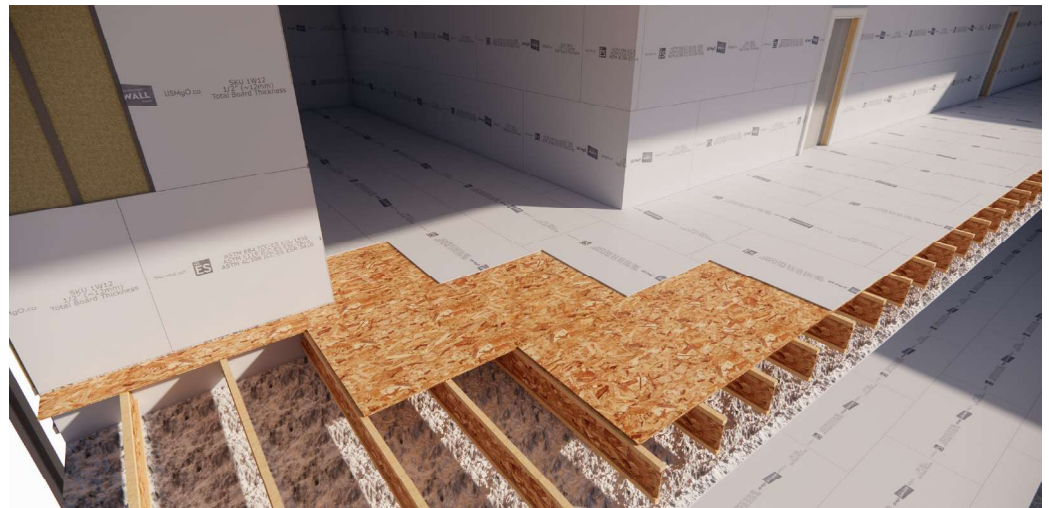


1/2" FLOOR PANELS

Innovation MgO 1/2" Floor Panels provide structural support and fire resistance in 1/2" panels for underlayment use in multifamily buildings and single family homes. Unlike fire-retardant-treated wood (FRTW) sheets, Innovation MgO 1/2" Floor 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 in underlayment applications. Panels provide a smooth, flat attachment plane for a variety of flooring options. With strong sound deadening properties, Innovation MgO 1/2" Floor Panels eliminate the need for a sound mat. Unlike gypcrete and other wet laid gypsum products, Innovation MgO 1/2" Floor Panels require no curing time and can be installed in all weather conditions.



1/2" FLOOR PANELS

Physical Properties			
Material Composition	Magnesium Oxychloride (MOC) Cement	Thickness	Nominal 1/2" (12mm)
Weight (lbs.) (sf)	± 90 lbs (2.8)	Thickness Deviation (ASTM C1185)	< ± 1/16 in. (1.59mm)
Available Sizes	Nominal 48 in. (1220mm) x 96 in. (2440mm) x 1/2 in. (~12mm)	Length, Width, and Diagonal Deviation (ASTM C1185)	< ± 1/8 in. (3.18mm)
Density	≥ 1.09 g/cm ³	Unprotected Exposure	180 days
Test Name	Test Method	Results	More Info / Minimum Acceptance Criteria
Code Acceptance			
Building Types	2018 and 2021 IBC and IRC; 2023 FBC; 2022 CBC and CRC with WUI; 2023 LABC and LARC	All Building Types (I, II, III, IV, V)	
Code Evaluations	ASTM E119: Fire Tests of Building Construction and Materials ASTM E2768: Extended Duration Surface Burning Characteristics of Building Materials		ESL-1610 ESL-1596
Fire & Thermal Resistance Properties			
Flame and Smoke Development	ASTM E84 ASTM E2768	Flame Spread ≤ 10; Smoke Developed ≤ 25 PASS	
Combustibility	ASTM E136-19 Method A	PASS, Noncombustible	
Fire-Rated Floor Assemblies	ASTM E119	Multiple 1 & 2-hour fire-rated assemblies available	ESL-1610
Structural Properties			
Allowable Joist Spacing	ASTM E330	See Specification Guide	
Fastener Holding	ASTM D1761	See Specification Guide	
Compression Indentation	ASTM D2394	0.004 in.	Deformation at 1250 psi / Requirement to be less than 0.05 in.
Flexural Strength (Machine / Cross Direction)	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
Humidified Deflection	ASTM C473	1/8 in.	48 hours at 90F and 90% RH / Required to be less than 1.25 in.
Falling Ball Impact	ASTM D1037	No damage to top or bottom from a 12" drop	
Fastener & Adhesion Properties			
Dry-Set Cement Shear Bond Strength	ANSI A118.1/A118.4	86 psi	Min shear bond strength at 7-day curing of 50 psi
Latex Cement Shear Bond Strength	ANSI A118.1/A118.4	307 psi	Min shear bond strength at 7-day curing of 50 psi
Fastener Withdrawal	ASTM D1037	> 275 lbs. (max force)	#10-13 Pancake Head Screw
Nail Head Pull-Through	ASTM D1037	> 618 lbf	0.121 x 3" Roofing Nail - Resistance of 90 lbf
Moisture Properties			
Moisture Absorption	ASTM C1185	≤ 20%	48 Hour Submersion
Moisture Content	ASTM D4442	≤ 6.4	
Water Vapor Permeability	ASTM E96 Water Method	11.5 perms	
Moisture Movement Test	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