

ROK-ON™ Product Testing

ROK-ON™ trademark owned by MagBoard LLC
 Testing done by Intertek, NTA, QAI and TCNA for MagBoard LLC
 Testing documents available upon request

Color Code

ROK-ON™ FRCC
 ROK-ON™ SIS
 ROK-ON™ SIP



TEST AND PERFORMANCE REQUIREMENTS	TEST STANDARD	REQUIREMENTS	TEST RESULTS
PHYSICAL PROPERTIES TESTING - ROK-ON™ FRCC Board (12mm 1/2 inch)			
Non Combustible	ASTM E136-09a	No flaming under test parameters	Rated as Non Combustible
Surface Burning Characteristics	ASTM E84 ANSI 2.5 NFPA 255 UBC 8-1 UL 723	5 smoke 10 flame contribution	0 smoke 0 flame contribution
Surface Burning Characteristics over Foam Plastics	CAN/ULC-S124/M85	15 minutes	Class A rating 30 min
Flexural Strength	ICC-ES AC386 ASTM C1185-08	min 580 psi both wet and dry	Dry parallel 1576 psi, dry perpendicular 2251 psi, wet parallel 1291 psi, wet perpendicular 2041 psi
Humidified Deflection	ICC-ES AC386 ICC-ES AC378 ASTM 473-07	< 0.3125" (ceiling)	.053 in.
Shear Bond Strength	ICC-ES AC386 ANSI 118.1 ANSI 118.4	>50 PSI	53.698 Average Dry-set Strength 53.634 Average Latex-Portland Strength
Water Absorption	ICC-ES AC386: ASTM C1185-08		29.80%
Water Vapour Transmission	ASTM E96/E96M-05		2.46 perms
Compression Indentation	ICC-ES AC386 ASTM D2394	>1250 psi <.05 inch	Pass 1736 PSI
Nail Head Pull Through	ICC-ES AC386 ASTM D1037-99:	>90 lb.	292 lb - pass
Screw Pull Out Test	ICC-ES AC386 ASTM D1037-99:	>90 lb.	220.9 lb - pass SDS screw
Lateral Nail Resistance	ICC-ES AC378 ASTM D1037-99:	>90 lb.	Pass dry 1/4" 115 lb, wet 1/4" 41lb, dry 3/8" 196lb, wet 3/8" 113 lb, dry 1/2" 261lb, wet 1/2" 157lb, dry 3/4" 337 lb, wet 3/4" 209lb
Falling Ball Impact	ICC-ES AC386 ASTM D1037-99:	no damage at 12" drop	Pass

ROK-ON™ ASSEMBLY and PANEL STRUCTURAL TESTING -			
Structural ROK-ON™ FRCC with 2x6 Wood Frame	ASTM E72-05	Transverse Load, Wet Racking Shear 1/8 in deflection	Positive pressure 260psf recorded (Assembly exceeded test frame capabilities) Negative Pressure 201 psf 5270 lbs 658.plf 1483 lbs 185.4 plf
Structural ROK-ON™ FRCC with 2x4 Steel Frame	ASTM E72-05	Transverse Load, Wet Racking Shear Deflection	Positive pressure 237psf Negative Pressure 102psf 7494 lbs 936.67plf See report performance tables
Structural 4ft x 8ft x 6.5inch ROK-ON™ Structural Insulated Panel (SIP)	ASTM E72-02 ASTME564	Transverse Axial load Racking Shear	161 psf 55,741 lbs 10,869 lbs 1/8in deflection 3,773 lbs 453 lbs 1/8in. deflection 472 lbs
Structural 4ft x 8ft x 8.5inch ROK-ON™ Structural Insulated Panel (SIP)	ASTM E72-02 ASTME564	Transverse Axial load Racking Shear	188.7 psf 66,246 lbs 10,063 lbs 1/8in deflection 3,020 lbs 419 lbs 1/8in. deflection 371 lbs
Structural 4ft x 9ft x 6.5inch ROK-ON™ Structural Insulated Panel (SIP)	ASTM E72-02 ASTME564	Transverse Axial load	182 psf 43,247 lbs
Structural 4ft x 9ft x 8.25inch ROK-ON™ Structural Insulated Panel (SIP)	ASTM E72-02 ASTME564	Transverse Axial load	224psf 51,888 lbs
Structural ROK-ON™ 2.75" SIS with Steel Frame (Several different configurations - see report)	ASTM E72-05	Wind Seismic Nominal Flexural Strngth Axial Loading	Contact ROK-ON™ representative for report detail.
ROK-ON™ ASSEMBLY and PANEL FIRE TESTING			

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TEST AND PERFORMANCE REQUIREMENTS	TEST STANDARD	REQUIREMENTS	TEST RESULTS
Fire Rated Assembly ROK-ON™ FRCC 12mm - 2x6 Wood Frame	E119-08a	Per assembly	2 Hour Fire Endurance Rating
Fire Rated Assembly ROK-ON™ FRCC 12mm - 2x4 Steel Frame	E119-08a	Per assembly	2 Hour Fire Endurance Rating
Fire Rated Assembly ROK-ON™ FRCC 6mm - 2x6 Steel Frame	E119-08a UL 263 CAN/ULCS101	Per assembly	1 Hour Fire Endurance Rating
6.5 in. Structural Insulated Panel	E84-10 UL 723 UBC 8-1 NFPA 255	Per Assembly	0 Flame spread 0 Smoke generation (1/2 hour test)
6.5 inch Structural Insulated Panel	E119-10a UL 263 NFPA 251	Per assembly	2 hour fire endurance rating w/ 1 layer standard Drywall. 47 minutes with no additional layers
6.5 inch Structural Insulated Panel	CAN/ULC S101-07 UBC 7-1 E119-10a UL 263 NFPA 251	Per assembly	2 hour fire endurance rating w/ 1 layer standard Drywall. 47 minutes with no additional layers
2.75" ROK-ON™ Structural Insulated Sheathing (SIS)	NFPA 285	Per assembly	Wall did not combust - 0 flame spread. Heat transfer was 30% below the requirement.
2.75" ROK-ON™ Structural Insulated Sheathing (SIS)	ASTM-E119 CAN/ULC S101	Per Assembly	1-hour and 2-hour fire endurance rating depending on assembly - Contact ROK-ON™ representative for report detail.
WET AREA UNDERLAYMENT AND BACKER BOARD TESTS (6mm 1/4 inch)			
Dimensional Tolerances	ASTM C1185	Length (in.) =/-.25 Width (in.) =/-.25 Thickness (in.) =/-.25 Square Straightness (in.) =/-.25 Edge Straightness (in.) =/-.25	Pass Pass Pass Pass Pass
Flexural Strength	ASTM C1185	>1450 PSI	2800 PSI
Fastner Pull Through	ASTM D1037	>.90	Pass
Compressive Strength	ASTM C1325 ASTM D3295	>1250 PSI	Pass
Surface Burning Characteristics	ASTM E84	5 smoke 10 flame contribution	0 smoke 0 flame contribution
Non Combustible	ASTM E136-09a	No flaming under test parameters	Rated as Non Combustible
Mold and Mildew	ASTM G21 ASTM D3272	Non Nutrient	Pass Non Nutrient
Fungus Testing	ASTM D3273	Pass	No evidence of fungal growth ASTM rating of 10
Linear Variation With Change In Moisture Content	ASTM D1037	Less than or equal to .07%	0.07%
Moisture Movement % Linear Change.	ASTM C 1185	Less than or equal to .07%	0.07%
Modulus of Elasticity	ASTM D1037 ANSI 208.1-99	398,900	456,100
Modulus of Rupture	ASTM D1037 ANSI 208.1-99	2,393	3,071
Modulus of Rupture Retention	ASTM D1037 ANSI 208.1-99	retain min of 50% MOR	Pass
Weight	ASTM 1037	Weight per Sq. Ft.	1.4 lbs.
Thickness Swell	ASTM 1037	24 hour thickness swell	3.5% - 4%
7 day Shear Bond Strength Portland Cement	ANSI A 118.1	50 PSI at 7 day curing	98 PSI
7 Day Shear Bond Strength Organic Mortar	ANSI 136.1	50 PSI at 7 day curing	189 PSI
Latex Portland Cement Mortar	ANSI A 118.4	50 PSI at 7 day curing	201 PSI
Organic Mortar	ANSI 136.1	50 PSI at 7 day curing	Pass
Humidified Deflection	ICC-ES AC386 ASTM C473-07 ICC-ES AC378	<.3125 in. (ceiling)	.053in.