



NEW

Rapid Radiant
NOW ALWAYS WITH
RECYCLED CONTENT

Rapid Radiant[®]

UNDERLAYMENT

**The Ultimate Underlayment
Formulated for Maximum
Radiant Heat Performance**

Maximum radiant heat performance calls for Rapid Radiant[®] — the underlayment formulated specifically to radiate heat and withstand fluctuating temperatures. Poured over hot water tubes or electric heating cables, Rapid Radiant meets the special challenges of radiant floor heating with:

- Resistance to heat deterioration
- A thin thermal mass that enhances heating system responsiveness
- A smooth, tough surface that accepts all floor coverings
- Enhanced floor stiffness that reduces floor bounce
- A seal along perimeter walls that keeps out baseboard drafts
- Elimination of squeaks and nail pops common to wood underlayments
- Muffled sound transfer
- Formulation free of urea formaldehyde

Rapid Floor[®]
Systems

A Reputation You Can Stand On[®]

Rapid Radiant®

UNDERLAYMENT

800-FLOOR-20 (356-6720)



***Drying Conditions:** Maxxon gypsum underlayments are inorganic and provide no source of nutrients to sustain mold growth. Prolonged contact of moisture with other construction materials, however, can result in mold growth. To avoid growth of mold on construction materials such as wallboard, drywall compound and even dust, it is vital to maintain a low relative humidity both before and after placement of Maxxon gypsum underlayments.

The general contractor must provide and maintain correct environmental conditions to keep the building clean and dry, and protect against infestation of moisture from a variety of potential sources. Moisture can be introduced by other trades through spillage, tracked in mud and rain, plumbing leaks, etc. Often stored in damp conditions, building products may arrive on site laden with moisture that releases after installation. Outside sources such as rain, snow, wind, etc. can also increase moisture levels.

Controlling moisture levels in the building, through appropriate trade sequencing and prevention of potential damage by other trades, is the responsibility of the general contractor. The general contractor must supply mechanical ventilation and heat if necessary. These controls fall under the scope of work of the general contractor — not Maxxon Corporation or the Maxxon gypsum underlayment installer.

Testing: Compressive strength testing must be performed in accordance with modified ASTM C 472. Before independent sampling, contact the Maxxon® Corporation quality control department to ensure that proper procedures are followed.

Warranty: Rapid Radiant® underlayment is warranted to be free from manufacturing defects as defined in this warranty. Manufacturing defects are considered to be those defects that occur due to the quality of the underlayment ingredients or from the manufacturing process itself. This warranty does not include labor costs and other costs or expenses associated with the removal or installation of any underlayment. Because Maxxon® Corporation does not install the underlayment, it cannot be held responsible for the results of the application. Maxxon Corporation specifically disclaims problems that occur due to weather conditions, structural movement, structural design flaws and application techniques. This warranty is in lieu of all other warranties expressed or implied including the warranty of merchantability and fitness of purpose and of all other obligations or liabilities on Maxxon Corporation's part. Maxxon Corporation neither assumes, nor authorizes any person to assume for Maxxon Corporation, any liability with the sale and installation of any of its floor underlayments.

Preparation:

Building interior should be enclosed and maintained at a temperature above 50 °F (10 °C) until structure and subfloor temperatures are stabilized. Preferred wood-frame construction is tongue-and-groove veneer or nonveneered subfloors. The subfloor must be broom clean and contaminant free. Before pouring Rapid Radiant®, the subfloor is coated with a company approved primer.

Methods of Installation

The thickness of Rapid Radiant varies with the type of radiant floor heating system. Rapid Radiant is poured to a depth that is 3/4" (19 mm) above the tops of the tubes or cables. Continuous ventilation and adequate heat should be provided to rapidly remove moisture from the area until the underlayment is dry. The general contractor must supply mechanical ventilation and heat, if necessary.* Under the above conditions, drying time of 5 to 7 days is usually adequate. For a complimentary copy of the brochure, Procedures for Attaching Finished Floor Goods, contact Rapid Floor Systems. It is the responsibility of the floor goods installer to determine the compatibility of their product with a particular floor underlayment.

Limitations

- (1) Rapid Radiant is to be poured to a depth that is 3/4" (19 mm) above the tops of the tubes or cables.
- (2) Rapid Radiant can be poured before or after drywall is installed.

- (3) All materials above crawl spaces must be protected by a vapor barrier.
- (4) During construction, place temporary wood planking over the underlayment wherever it will be subjected to heavy wheeled or concentrated loads.
- (5) Rapid Radiant is not designed to be installed on or below grade, except over well-drained structural substrates.
- (6) The structural subfloor and floor joist must both comply with manufactures' maximum span criteria. Typically a deflection limitation of L/360 is adequate for Rapid Radiant. Some floor coverings may require a stiffer floor system. Rapid Radiant is non-structural and therefore cannot be expected to reinforce structurally deficient subfloors. Necessary allowances should be made for expected live, concentrated, impact, and/or dead loads including the weight of finished floor goods and setting beds.
- (7) Rapid Radiant should not be used for exterior application, or where it will come in prolonged contact with water.
- (8) Rapid Radiant should not be applied directly to a plastic vapor barrier.
- (9) Maxxon underlayments are "breathable" and not a vapor barrier. The general contractor, architect, specifier, or building owner shall test slabs-on-ground or elevated slabs for MVER (ASTM F1869-09) or RH (ASTM F2170). If the MVER or RH of the concrete substrate exceeds the floor covering manufacturer's respective requirements for the finished flooring system, the concrete must be treated with a damp proof membrane, such as Maxxon DPM, before installation of a Maxxon underlayment.

Technical Data

Compressive Strengths: Up to 3,000 psi (20.7 MPa) when tested in accordance with modified ASTM C 472.

Weight: At 1 1/4", less than 12 lbs./sq. ft. (at 32 mm, less than 58.7 kg/m²).

Point Loading: Typical loading of up to 2,500 pounds (1134 kg) on a 1" (25 mm) diameter disc.

Density: Typical density of 115 pounds per cubic foot (1,840 kg/m³).

Thermal Resistance at 1-inch Thickness: R-0.208

Coefficient of Conductivity (K):

4.96 Btu/(h•ft²• °F) (.7142 W/(m• °C))

Specific Heat: .224 Btu/(lb• °F) at 85 °F (.9385 kJ/kg• °C) at 29.44 °C)

Acoustical Performance: The acoustical performance of Rapid Radiant® is similar to Rapid Floor® Underlayment. Contact Rapid Floor Systems for reports.

Surface Burning Characteristics: Flame spread index - 0, fuel contributed - 0, smoke development - 0. (ASTM E 84)

VOC Emissions: GREENGUARD Children & Schools Certified

Code Listings

ICC-ES Legacy Reports ESR-2540
 ICC-ES Legacy Report No. 93-60
 U.S. Dept. of Housing and Urban Development No. 1286b
 City of Los Angeles RR 25186
 GREENGUARD Indoor Air Quality Certified®
 GREENGUARD Children & SchoolsSM Certified

UL Fire Resistance Ratings

Rapid Floor® Systems products are covered in the following UL Fire Resistive Designs:

G524	J991	L502	L517	L534	L552	L585
G560	J994	L503	L518	L535	L555	L588
G561	K906	L504	L519	L536	L556	L589
G563	L004	L505	L520	L537	L557	L592
G566	L005	L506	L522	L538	L558	L593
G574	L006	L507	L523	L539	L560	L594
J917	L201	L508	L524	L540	L562	L599
J919	L202	L509	L525	L541	L563	M500
J920	L206	L510	L526	L542	L564	M503
J924	L208	L511	L527	L543	L573	M504
J927	L209	L512	L528	L545	L574	M505
J931	L210	L513	L529	L546	L575	M508
J957	L211	L514	L530	L547	L579	
J958	L212	L515	L532	L549	L581	
J966	L501	L516	L533	L551	L583	

SAMPLE USGBC LEED CREDIT AREAS IMPACTED BY RAPID RADIANT

Project	Credit	Category	How Requirement is Fulfilled
Indoor Environmental Quality	IEQ 3.2	Air Quality Before Occupancy	GREENGUARD Certified (Testing MUST be performed before claiming credit)
	IEQ 4.3	Low Emitting Materials: Floor System	GREENGUARD Children & Schools SM Certified
Materials & Resources	MR 2	Construction Waste Management	Recyclable packaging and shipping materials
	MR 4	Recycled Content	Fly Ash
	MR 5	Local/Regional Materials	Manufactured in Blue Rapids, KS 66411; Las Vegas, NV 89036; Camden, NJ 08103; Job Site Manufactured with Local Sand & Water
Innovation & Design	ID 1	Sound Control	Enhanced living environment

*Credits may vary depending on project type & Rapid Floor Products used. Contact Maxxon Corporation for more information.

Rapid Floor® Systems

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The Maxxon Green Mark

Maxxon products with this symbol are LEED-compliant and may help contribute toward points for LEED project certification.

MADE IN THE USA



The GREENGUARD INDOOR AIR QUALITY CERTIFIED® Mark is a registered certification mark used under license through the GREENGUARD Environmental Institute.

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