Therma-Floor®

Like a Quiet, Even-Heating Radiator, Under Every Floor in Your Home





Therma-Floor is a gypsum underlayment designed by Maxxon® Corporation specifically for radiant floor heating systems. Poured over hot water tubes or electric heating cables, it's the ideal thermal mass for any radiant floor system.

Therma-Floor encases the tubes or cables in crack-resistant, noncombustible gypsum, specially formulated to resist breakdown to 150 °F (66 °C). Poured only 1½" (32 mm) thick, Therma-Floor also makes your heating system more responsive — and your home more comfortable.

Some radiant systems install <u>under</u> plywood subfloors, resulting in lost heat as plywood is nearly <u>4 times</u> more insulative than Therma-Floor. Therma-Floor works <u>above</u> the subfloor, for greater efficiency and consistent comfort.

Why a radiant floor heating system isn't complete without Therma-Floor.

- Resists heat deterioration it's formulated specifically for radiant floor heating
- Enhances heating system responsiveness due to its thin thermal mass
- Provides a smooth, tough surface
- Stiffens the floor and won't shrink crack
- Seals perimeter walls, keeping out baseboard drafts
- Eliminates squeaks and nail pops common to wood underlayments
- Muffles sound transfer
- Backed by a nationwide applicator network with over three billion square feet of experience
- Accepts virtually <u>all</u> floor coverings
- · Contains no urea formaldehyde.



Product Support:

Additional product literature and information are available upon request. CSI formatted specifications are available at www.maxxon.com

* Drying Condtions: 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 place ment 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: Maxxon Corporation warrants Therma-Floor Underlayment 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 Therma-Floor 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 Therma-Floor.

Because the Maxxon Corporation does not perform the actual Therma-Floor installation, 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 in connection with the sale and installation of Therma-Floor.

The Ideal Underlayment for Electric or Hot Water Radiant Floor Heating Systems

from Maxxon, the "Green" Floor Specialists.

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 nonveneer subfloors. The subfloor must be broom clean and contaminant free. Before pouring Therma-Floor, the subfloor is coated with a company approved primer.

Methods of Installation:

The thickness of Therma-Floor varies with the type

of radiant floor heating system. Therma-Floor is poured to a depth that is 3/4" (19 mm) above the tops of the tubes or cables, in one or two lifts at the discretion of the installer.

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 Maxxon Corporation. It is the responsibility of the floor goods installer to determine the compatibility of their product with a particular floor underlayment.

- Limitations:
 (1) Therma-Floor is to be poured to a depth that is ¾" ® (19 mm) above the tops of the tubes or cables.
- (2) Therma-Floor can be poured before or after drywall
- (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) Therma-Floor is not designed to be installed on or below grade, except over well-drained

structural substrates. (6) The structural floor should

- be adequate to withstand design loads with a deflection limitation of L/360.
- (7) Therma-Floor should not be used for exterior application, or where it will come in prolonged contact with water.
- (8) Therma-Floor should not be applied directly to a plastic vapor barrier.
- (9) Concrete moisture or vapor emission must be eliminated by others prior to a Maxxon underlayment applica-tion for below grade, on grade or suspended slabs.



Lightweight Therma-Floor encases tubes or electric cables in a crack-resistant layer of noncombustible gypsum.

Code Listings:

ICC-ES Legacy Report ER-3433 ICC-ES Legacy Report #90-31 Contact Maxxon Corporation for major city approvals. GREENGUARD INDOOR AIR QUALITY CERTIFIED®

| Sample USGBC LEED Credit Areas* | | | |
|------------------------------------------------------|--------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| IMPACTED BY THERMA-FLOOR "GREEN" FLOOR UNDERLAYMENTS | | | |
| CREDIT AREA | CREDIT | CATEGORY | HOW REQUIREMENT IS FULFILLED |
| Indoor Environmental Quality | EQ 3.2 | Construction Indoor Air Quality Management Plan | GREENGUARD Certified: (Field Testing MUST be completed prior to claiming credit) |
| Materials & Resources | MR 4.1 - 4.2 | Recycled Content | Fly Ash |
| | MR 5.1 - 5.2 | Local/Regional Materials | Manufactured in Blue Rapids, KS 66411; Las Vegas, NV 89036; Camden, NJ 08103; Brunswick, GA 31520; Job Site Manufactured with Local Sand and Water. |

^{*}Credits may vary depending on project type and Maxxon products used. Contact Maxxon Corporation for complete information

THERMAFLU

The Ideal Underlayment for Radiant Floor Heat

For more information: 1-800-356-7887 E-mail: info@maxxon.com www.maxxon.com

Maxxon® Corporation

920 Hamel Road, P.O. Box 253 Hamel, Minnesota 55340 USA 1-763-478-9600 • FAX: 1-763-478-2431



AIR QUALITY CERTIFIED® Mark is a registered certification mark

The GREENGUARD INDOOR used under license through the GREENGUARD Environmental Institute

Technical Data

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

Weight: At 11/4", 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 Therma-Floor is similar to Gyp-Crete® Floor Underlayment. Contact Maxxon Corporation for reports.

Fire Ratings: Contact Maxxon Corporation for Underwriters Laboratories fire ratings.

Surface Burning Characteristics: Flame spread index - 0, fuel contributed - 0, smoke development - 0.

VOC Emissions: GREENGUARD Indoor Air Quality Certified



The Maxxon Green Mark Maxxon products with this symbol are LEED-compliant and help to contribute valuable points toward LEED-certified