

Ultra Strong, Ultra Fast. Rapid Floor Ultra Gives You the Ultimate Edge.

For new construction or renovation, it's hard to match Rapid Floor Ultra's impressive list of application benefits. For reliably superior results, count on Rapid Floor Ultra to:

- Cap uneven, rough, cracked or spalled concrete
- Level entire floors or transition areas, feather edge to deepfill
- Resurface old or damaged concrete floors
- Perform up to 4000 PSI (27 Mpa)
- Resist water absorption
- Fill voids in concrete floors
- Top precast planks
- Install right over old floor coverings, including vinyl asbestos tile
- Provide fire and sound control over wood frame construction
- Install above, or on a below grade
- Require no troweling
- Provide a temporary wear surface just 2-4 hours after application
- Exceed standards set by leading floor goods manufacturers

Quality Product, Quality Installation.

Rapid Floor Ultra is installed by a network of authorized applicators, aided by standardized quality control procedures, technical support, and research and development. The result is a reliable underlayment and a better floor for your project. From formulation through installation, Rapid Floor Ultra delivers "a reputation you can stand on."

Ultimate Versatility.

Whether it's for new construction or renovation, over concrete or wood subfloors, Rapid Floor Ultra is the strongest gypsum floor underlayment available – up to 4000 PSI (27 Mpa).

Besides the tough new floor which allows trades to continue their work and stay on schedule, commercial projects also benefit from added sound and fire control (see charts at right).

When impact noise reduction is needed, Rapid Floor Ultra can be poured over Acousti-Mat, for the ultimate in sound control. In wood frame construction, Acousti-Mat can add up to 10 db rating points to the Impact Insulation Class (IIC) sound rating points are possible. Every 10 rating points represents an additional 50% reduction in sound transmission!

Floor goods go down fast and down fast and easy too, over Rapid Floor Ultra's smooth, hard surface. With proper ventilation, nearly any type of floor covering can be installed within three to five days of a Rapid Floor Ultra pour. Carpet, vinyl, wood, tile...they'll all look better and last longer too, thanks to Rapid Floor Ultra's even, flat surface. Our Methods Brochure outlines how each on can be installed, to help ensure superior results for your finished floor.

Rapid Floor Ultra

UL FIRE RESISTANCE RATINGS					
Wood Construction			Concrete Construction		
L206	L512	L524	L534	J919	J957
L501	L513	L525	L535	J920	J991
L502	L514	L528	L536	J924	
L503	L515	L529	L537	J927	
L505	L518	L530		J931	
L511	L519	L531			

MINIMUM PRODUCT THICKNESS	
Application	Minimum Thickness
Wood Panels	¾" (19mm)
Old Wood Renovations	¾" (19mm)
Concrete	3/8" (10 mm)

SOUND RATINGS	
Tested Assembly:	
¾" (19 mm) Rapid Floor – 1200 psi (8.3 Mpa), 5/8" (15 mm) plywood subfloor, 2" x 10" (51 mm-254mm) wood joists spaced 16" (400 mm) o.c., 5/8" (15 mm) gypsum board ceiling suspended on RC-1 channels	
Floor Coverings	Ratings*
High-grade residential carpet & cushion	53-STC/78-IIC
Low-grade residential carpet & cushion	52-STC/81-IIC
High-grade commercial carpet & cushion	52-STC/71-IIC
Med-grade commercial carpet & cushion	50-STC/70-IIC
Bare floor, no carpet or cushion	50-STC
With Sheet vinyl	50-STC
With Vinyl tile	52-STC
With wood parquet floor	51-STC
With ceramic tile	51-STC
Tested Assembly:	
Same as above but with 3" of fiberglass insulation added between the plywood subfloor and ceiling gypsum board	
Floor Coverings	Ratings*
Low-grade commercial carpet & cushion	54-STC/76-IIC
High-grade residential carpet & cushion	54-STC/80-IIC
Medium-grade residential carpet & cushion	54-STC/82-IIC
Bare floor, no carpet or cushion	53-STC
*NOTE: Tested in accordance with ASTM E 90-85 and ASTM E 492-77	

The acoustical performance of Rapid Floor Ultra is similar to Rapid Floor. Complete ratings are available by calling 1-800-FLOOR-20 (356-6720), or 612-478-9655.

How an 8th Story Roof Became a 9th Story Floor...

A “New Story” of Rapid Floor Success at Chicago’s Rush Hospital.



Rush Hospital, Chicago

Building Site:
Academic Facility Vertical Expansion

Construction Details:

- 43,000 sq. ft. (3,999 m²) of Rapid Floor Ultra
- Poured at an average depth of 3/4" (19 mm), with typical depths from 3/8" – 1 1/2" (10 mm– 38 mm)
- Old concrete roof laser leveled prior to application of Rapid Floor Ultra

General Contractor:
Morse Deisel

Architect:
Hansen Lind Meyer Inc.

Rapid Floor Dealer:
Barrier Corporation, Morton Grove, IL

What do you do when you need to expand your facility but adjacent property is unobtainable?

What do you do when you need to expand your facility but adjacent property is unobtainable?

For Rush Hospital in downtown Chicago, there was no place to go but up.



Rapid Floor Ultra saves time with high-volume application equipment capable of pumping 1,000 to 30,000 square feet (93 m² – 2787 m²) in one workday.

Thanks to construction specifications calling for Rapid Floor Ultra, the ninth-story vertical addition was a textbook case in construction efficiency. Once minimal prepping of the existing concrete roof was completed, the rapid floor application crew laser leveled the worn, cracked and uneven surface. The Rapid Floor Ultra was pumped into place-all the way up from street level to the new ninth floor. The Rapid Floor Ultra quickly and permanently filled small cracks as well as large voids. Featheredging completed the application to provide the ultimate smooth, level surface can accommodate smooth transitions



Rapid Floor Ultra always pours a smooth, level floor practically from the instant it's pumped onto the old surface or new concrete subfloor. Only minimal finishing is required.

In addition to speed of installation, Rapid Floor Ultra's fast drying time also helped the project run smoothly. Other trades were able to work on Rapid Floor Ultra's temporary wear surface in just two hours.



Talk about flexibility! Rapid Floor Ultra finishes to a featheredged to achieve a near level floor.

Ultra Advantages, from the Ultimate Underlyment.

Here's a product that truly earns its name. Rapid Floor Ultra enhances overall customer satisfaction with a host of "ultra" advantages, including:

- A smooth, strong surface
- Enhanced fire resistance
- Accepts virtually all floor coverings
- Inhibits sound transfer between floors/rooms
- Won't shrink crack
- Can be featheredged
- Strengths up to 4000 PSI (27 Mpa)



INSTALLING RAPID FLOOR ULTRA

PREPARATION

Concrete subfloors must be fully cured, moisture free, and have no efflorescence. The substrate surface shall be clean, dust and contaminant free. Cracks should be filled with a crack filler or an electrometric compound. Plumbing or electrical penetrations should be packed with insulation and sealed.

PRIMING

To promote proper hydration and to ensure a solid bond, the subfloor must be coated with manufacturer-approved floor primer. Rapid Floor Ultra should not be poured without first priming the subfloor.

TESTING

Testing of Rapid Floor Systems under layments shall be done in accordance with ASTM C 472.

LIMITATIONS

- (1) The typical maximum depth of Rapid Floor Ultra is 3" (76 mm). For depths greater than 3" (76 mm), contact an authorized applicator.
- (2) Rapid Floor Ultra may be scheduled before or after installation of drywall.

- (3) All material above crawl spaces must be protected by a vapor barrier.
- (4) During construction, place temporary wood planking over the underlyment whenever it will be subjected to heavy wheeled or concentrated loads.
- (5) Rapid Floor Ultra is not designed to be installed on a or below grade, except over well-drained structural substrates.
- (6) The structural floor should be adequate to withstand design loads with deflection limitations of L/360.
- (7) Rapid Floor Ultra should not be used directly over metal forms, for exterior application, or where it will come into prolonged contact with water.
- (8) Rapid Floor Ultra should not be directly applied to a plastic vapor barrier.

CODE LISTINGS

SBCCI	Report No. 9622
BOCA	Report No. 93-60
ICBO	Report No. 4950

HUD Materials Release No. 1286
City of New York MEA 49-92-M Vol. II
City of Los Angeles R 2518

Rapid Floor Ultra TECHNICAL DATA	
Compressive Strength Range	2500-4000 psi (17.2-27.4 Mpa)
Installed Weight	3/8" (10 mm) = 3.5 lb/ft ² (15.9 kg/m ²) 1" (25 mm) = 9.2 lb/ft ² (42.4 kg/m ²)
Dry Density	115-120 lbs/ft ³ (1840-1900 kg/m ³)
K-Factor	5.2 Bty-inch/hour-F-ft ² (.74 W/[m ² *C])
Specific Heat	.25 Btu/lb-F (.94 kJ{kg*C])
Surface Burning Characteristics	Flame spread:0 Fuel contributed:0 Smoke Density:0
Point Loading	Typical loading of up to 3500 lbs. (1590 kg) on a 1" (25.4) dia. Disk @ .007" maximum indentation

SECTION 03540

Floor Underlayment

RECOMMENDED SPECIFICATION
FOR RAPID FLOOR ULTRA
UNDERLAYMENT FOR TOPPING
CONCRETE FLOORS

PART 1 GENERAL

1.01 SUMMARY

- A. This is the recommended specification for Rapid Floor Ultra Underlayment for topping concrete floors.

1.02 SECTION INCLUDES

- A. Rapid Floor Ultra Underlayment
- B. Manufacturer Approved Floor Primer
- C. Manufacturer Approved Floor Sealer

1.03 QUALITY ASSURANCE

- A. Installer's Qualifications: Installation of Rapid Floor Ultra shall be by an applicator authorized by Rapid Floor Systems using approved mixing and pumping equipment.

1.04 DELIVERY, STORAGE AND HANDLING

- A. General Requirements: Materials shall be delivered in their original, unopened packages, and protected from exposure to the elements. Damaged or deteriorated materials shall be removed from the premises.

1.05 SITE CONDITIONS

- A. Environmental Requirements: Before, during and after installation of Rapid Floor Ultra, building interior shall be enclosed and maintained at a temperature above 50 degrees F (10 degrees C).

PART 2 PRODUCTS

2.01 MATERIALS

- A. Floor Underlayment: Rapid Floor Ultra underlayment as manufactured by Rapid Floor Systems, Hamel, MN. All others must receive prior approval.
- B. Sand Aggregate: Sand shall be 1/8 inch (3 mm) or less, washed masonry or plaster sand, meeting requirements of Maxxon Corporation Sand Specifications 101.
- C. Mix Water: Potable, free from impurities.
- D. Subfloor Primer: Manufacturer Approved Floor Primer.
- E. Sealer: Manufacturer Approved Floor Sealer.

2.02 MIX DESIGNS

- A. General Requirements: Rapid Floor Ultra mix proportions and methods shall be in strict accordance with product manufacturer recommendations.

PART 3 EXECUTION

3.01 PREPARATION

- A. Condition and Cleaning of Subfloor: Subfloor shall be structurally sound. General Contractor shall clean subfloor to remove mud, oil, grease, and other contaminating factors before arrival of the Rapid Floor Ultra underlayment crew.
- B. Leak Prevention: Fill cracks and voids with a quick setting patching or caulking material where leakage of Rapid Floor Ultra could occur.
- C. Priming Subfloor: Prime concrete subfloor using the Manufacturer Approved Floor Primer instructions vary according to the porosity of the concrete, multiple coats may be necessary.
- D. Expansion Joints: Allow joints to continue through the Rapid Floor Ultra at the same width.

3.02 APPLICATION OF CEMENTITIOUS FLOORING

- A. Scheduling: Application of Rapid Floor Ultra shall not begin until the building is enclosed, including roof, windows, doors and other fenestration. Install after drywall installation unless tenant finish requirements identify partitioning after the pour.
- B. Application: Place Rapid Floor Ultra 3/8 inch (10 mm) minimum over concrete. Spread and creed Rapid Floor Ultra to a smooth surface. Except at authorized joints, place Rapid Floor Ultra as continuously as possible until application is complete so that no Rapid Floor Ultra slurry is placed against Rapid Floor Ultra product that has obtained it's initial set. Featheredging may be accomplished in low traffic areas.
- C. Drying: General Contractor shall provide continuous ventilation and adequate heat to rapidly remove moisture from the area until the rapid Floor Ultra is dry. General Contactor provide mechanical ventilation if necessary. Under the above conditions, for 3/4days is usually adequate drying time. To test is usually adequate drying time. To test for dryness, tape a 24-inch by 24-inch (609 mm) section of plastic to the surface of the underlayment. After 48-72 hours, if no condensation occurs, the underlayment shall be considered dry. Perform dryness test 3-5 days after pour.

3.03 PREPARATION FOR INSTALLATION OF GLUE-DOWN FLOOR GOODS

- A. Sealing: Seal all areas that receive glue-down floor goods according to Rapid Floor Systems specifications. Any floor areas where the surface has been damaged shall be cleaned and sealed regardless of floor covering to be used. Use manufacturer-approved floor sealer to seal the Rapid Floor Ultra prior to installation of glue-down floor goods. Where floor goods manufacturer require special adhesive or installation systems, their requirements supersede these recommendations.
- B. Floor Goods Attachment: See the brochure "Finished Floor Goods Attachment Methods for Rapid Floor Systems Undelaysments" for guidelines for installing finished floor goods. This procedure I not a warranty and is to be used as a guideline only.

3.04 FIELD QUALITY CONTROL

- A. Slump Test: Rapid Floor Ultra mix shall be tested for slump as it's being pumped using a 2-inch by 4 inch (50 mm by 101 mm) cylinder resulting in a patty size of 8 inches (203 mm) plus or minus 1 inch (25 mm) diameter.
- B. Field Samples: At least one set of 3 molded cube samples shall be taken from each day's pour ding the Rapid Floor Ultra application. Cubes shall be tested as recommended by Rapid Floor Systems in accordance with ASTM C 472. Test results shall be available to architect and/or contractor upon request from applicator.

3.05 PROTECTION

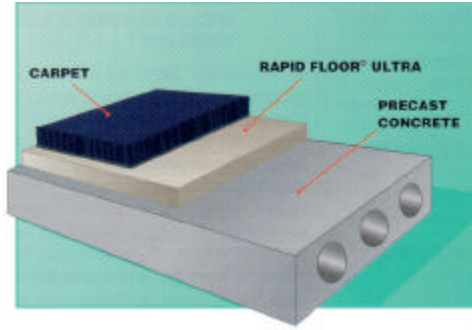
- A. Protection From Heavy Loads: During construction, place temporary wood planking over Rapid Floor Ultra wherever it will be subject to heavy wheeled or concentrated loads.

END OF SECTION

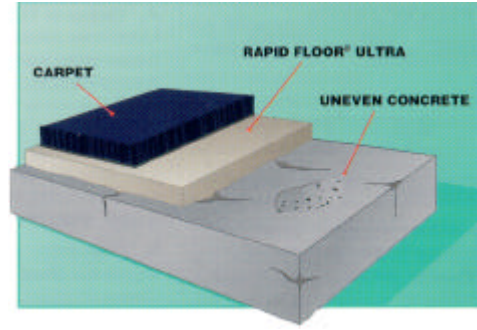
For customized CSI specs for all Rapid Floor Ultra applications, contact your Rapid Floor Ultra applicator, or see our program in SweetSource.

Rapid Floor Ultra over...

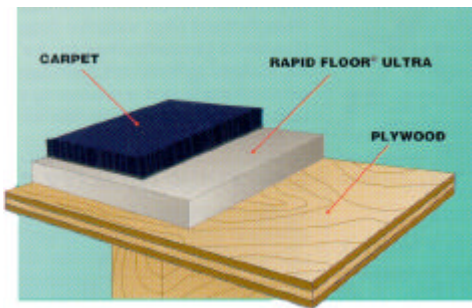
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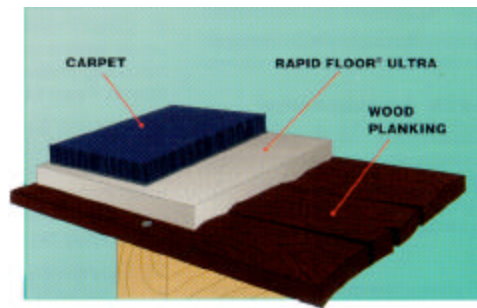
STRUCTURAL CONCRETE



WOOD FRAME



WOOD RENOVATION



Warranty

Rapid Floor Ultra 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