



# Firm-Fill® 3310

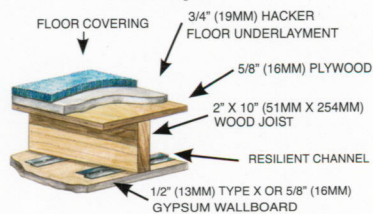
**NEW  
PRODUCT**

*An innovative new product  
from Hacker Industries, Inc.  
that elevates gypsum concretes to  
an unprecedented level of rock-solid  
performance. FIRM-FILL® 3310 delivers:*

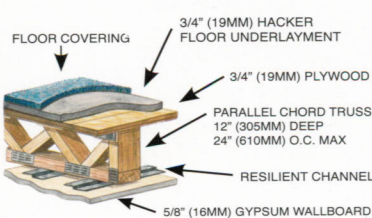
- **Unparalleled levels of strength and finish** providing exceptional compressive strengths up to 3300 psi. Poured before or after drywall, FIRM-FILL® 3310 flows evenly over the subfloor creating a smooth, flat, crack-resistant surface for virtually all types of finished floor coverings.
- **Unequaled quality of installation,** FIRM-FILL® 3310's fast setting surface and low water demand rapidly eliminates water allowing for accelerated drying time. FIRM-FILL® 3310 is only available from expertly trained, Licensed Applicators who have installed nearly a billion square feet of Hacker Floor Underlayments in residential and commercial projects across North America.
- **With the proven benefits of Hacker Floor Underlayments,** FIRM-FILL® 3310 will deliver fire resistance, improved sound performance and resilient surfaces for finished floor coverings in both new construction and renovation projects. Since 1983, Hacker Industries, Inc. has supplied value by delivering only the highest quality floor underlayments and will continue to set the standard for reliable, cost-effective solutions for the most demanding project specifications.



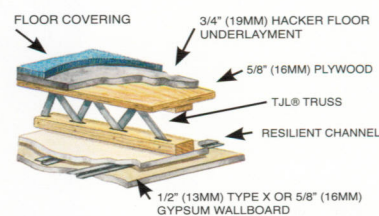
### Wood System



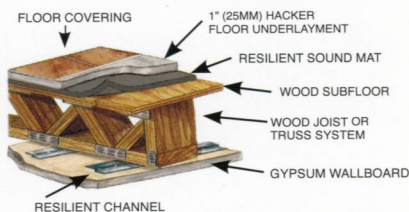
### Truss Plate Institute



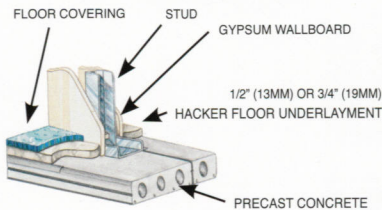
### TJL® Truss



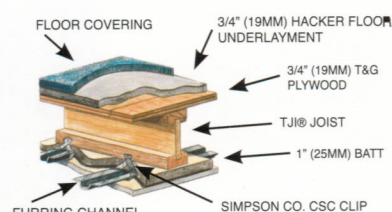
### Sound Mat



### Concrete System



### TJI® Joist



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## Recommended Specifications

### PART I GENERAL

#### 1.1 Scope – Specify to meet project requirements

##### A. Work included:

1. **FIRM-FILL® 3310**
2. Hacker Floor Primer
3. Hacker TopCoat™ SP (Surface Prep)

#### 1.2 Qualifications

- A. **FIRM-FILL® 3310** shall be installed by Licensed Applicators of Hacker Industries, Inc., using approved mixing and pumping equipment with a water meter.
- B. **FIRM-FILL® 3310** shall be delivered in original, unopened bags and protected from exposure to the elements after delivery. Do not allow bags to get wet.
- C. Install either before or after drywall, as specified.
- D. Before, during, and after installation of **FIRM-FILL® 3310**, the building interior must be continuously ventilated and heated to a minimum of 50°F (10°C).
- E. Compressive strength can be specified from 2000 to 3300 psi (13.8 to 22.8 MPa).
- F. All materials specified herein shall be approved by Hacker Industries, Inc.

### PART II PRODUCTS

#### 2.1 Materials

- A. Gypsum Concrete: **FIRM-FILL® 3310** as supplied by Hacker Industries, Inc.
- B. Hacker Floor Primer
- C. Hacker TopCoat™ SP, if specified
- D. Sand: 1/8" (3mm) or less washed plaster or masonry sand meeting requirements of Hacker Industries, Inc. Sand Guidelines.
- E. Mix Water: Potable and free from impurities.

### PART III EXECUTION

#### 3.1 Condition of Subfloor

- A. General Contractor is responsible for providing a structurally sound (L/360) subfloor, broom cleaned, dry, and completely free of oil, grease, paraffin, wax, laitance or other contaminants.
  - B. Before installation, the General Contractor shall inspect and approve the condition of the subfloor and test for dryness.
- #### 3.2 Preparation of Subfloor
- A. All cracks and voids shall be filled with a quick-setting taping or patching compound or equal where leakage could occur.
  - B. Plywood/OSB: Spray one coat Hacker Primer using one gallon (3.8L) per 500 square feet (46 sq.m).
  - C. Other substrata: Conditions may vary. Consult Hacker Industries, Inc. for recommended floor preparation.

#### 3.3 Mixing Instructions

- A. 4 to 5.5 gallons (15.1 to 20.8L) of water and sand as specified per 80 pound (36.3 kg) bag of **FIRM-FILL® 3310**. Do not overwater. Water amount will change with wetness of sand.
- B. **FIRM-FILL® 3310** mix proportions and methods shall be in strict accordance with Hacker recommendations.

#### 3.4 Underlayment Application

- A. Application: **FIRM-FILL® 3310** shall be installed at 3/4" (19mm) minimum over wood, 1/2" (13mm) minimum over concrete. Place as continuously as possible until installation is complete.
- B. Protection: After installation, temporary wood planking shall be placed by General Contractor wherever the underlayment will be subject to wheeled or concentrated loads.
- C. Drying: The General Contractor shall

provide continuous ventilation and adequate heat to rapidly remove moisture from the area until the underlayment is dry. Do not install finished floor coverings until the **FIRM-FILL® 3310** has been tested for dryness. Consult flooring contractor for recommended procedures to test for dryness. Reference Hacker Industries, Inc.'s Drying Conditions Flyer.

- D. **FIRM-FILL® 3310** is suitable for interior applications only and shall be covered by a finished floor covering.

#### 3.5 Preparation for Installation of Floor Coverings

- A. Sealing: Any areas where the underlayment surface has been damaged shall be cleaned and sealed regardless of specified floor covering. Floor covering manufacturers' specifications and requirements supercede these recommendations.
- B. Floor Covering Procedures: Please see Hacker Industries, Inc.'s "Guidelines for Installing Finished Floor Coverings." The guideline is not a warranty and shall be used as a guideline only. Also see ASTM F2419 for recommended procedures.

#### 3.6 Field Quality Control

- A. Slump Test: **FIRM-FILL® 3310** shall be tested for slump as it is being installed using a 2" by 4" (approx. 51mm by 102mm) cylinder. The patty size should be 7-1/2" (191mm) plus or minus 1/2" (13mm) in diameter.
- B. Field Samples: Testing of molded cube samples shall be in accordance with ASTM modified C472 using split brass molds. Prior to independent testing, please request that proper ASTM methods are followed.



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