



ALLIED CUSTOM GYPSUM
Submittal Sheet

AccuRadiant®

Pourable Thermal Underlayment

Cementitious Underlayment

The Ultimate in poured gypsum floor underlayment products.

- Ultimate radiant mass, evenly transfers heat, improves response time
- Designed specifically for radiant floor heating systems
- Can be poured over hot water tubes, electric heating cables or mats
- Smooth, non-combustible gypsum underlayment, specifically formulated to resist breakdown
- Adds to the acoustical performance of your home
- Stiffens the floor and eliminates squeaky floors and nail pops
- Seals perimeter walls, reducing baseboard drafts and air leaks
- Non-combustible, UL fire rated

System Description

AccuRadiant® Brand Floor Underlayment System is a fast applied, quick-setting gypsum cement formulated specifically for radiant floor heating applications. AccuRadiant® provides compressive strengths up to 3,500 PSI, depending upon the mix design. Consult your local AccuCrete® contractor on how to best achieve the compressive strength required for your project. Non-shrinking and non-cracking AccuRadiant® holds your tubing or cable in place to reduce noise and chafing, while providing a beautiful surface ready for your ceramic tile, marble tile, or floor covering of your choice. The same sound and fire resistance qualities of AccuCrete® underlayment products make AccuRadiant® the safe choice for your radiant heat installation.

Product Description

AccuRadiant® Poured Gypsum Underlayment System is batch mixed on the jobsite with sand and water providing a monolithic, smooth, lightweight floor. At minimum depth of 3/4" over the tubing or cables to a maximum of 3", typically 1 - 1/2", AccuRadiant® weighs 14.4 pounds per square foot and has a density of approximately 115 pounds per cubic foot.

System Benefits

AccuCrete® gypsum floor underlayment system provide a cost effective underlayment for residential, radiant heating, multi-family, commercial, institutional, as well as new and renovation type construction. Typical applications are designed to provide a 1 or 2-hour fire rated assembly and significantly improve sound ratings.

Physical Properties

AccuRadiant® Pourable Thermal Underlayment	
Color	Gray Powder
Flow Properties	Medium Flow w/ Self-Leveling Properties
Water Per Bag	4.5 to 6.0 US Gal. per 80 lb. bag
Sand Per Bag	1.0 to 1.8 ft³ of washed mason or concrete sands meeting Acculevel / Accucrete Min. Gradation Criteria
Compressive Strength	ASTM C472 2200 - 3500 PSI Depending on mix design, sand gradation and water content
Dry Density	110 - 120 lb. / ft³
Recommended Thickness	3/4 in. over tubing or electric cables
Surface Burning Characteristics	ASTM E84 - Flame spread: 0, Fuel Contribution: 0, Smoke Density: 0

Fire testing of construction products and materials ASTM E119: Pass



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Limitations

- No single application of AccuRadiant® Floor Underlayment should exceed 3" in depth. Consult your AccuCrete® contractor on how to achieve depths greater than 3".
- Any material poured above a crawl space must be protected by a vapor barrier.
- After installation of the AccuRadiant® Floor Underlayment and prior to the resumption of construction, place temporary wood planking over underlayment where heavy wheeled or concentrated loads will occur.
- AccuRadiant® Floor Underlayment Systems are not designed to be installed on or below grade, except over well-drained structural substrates.
- The structural floor should be designed to withstand design loads with a minimum deflection criteria of L/360.
- Unless otherwise stated, AccuRadiant® Floor Underlayment Systems should not be used as a wearing surface.
- Unless otherwise stated, AccuRadiant® Floor Underlayment Systems should not be used for exterior applications or where they will come in prolonged contact with water.
- AccuCrete® is approved for use over concrete and new plywood or OSB. Other substrates and conditions may require special preparation. Consult the manufacturer before installation over other types of substrates.
- AccuRadiant® Floor Underlayment Systems are only one component of an effective floor-ceiling fire rated and sound rated assembly. Care must be taken in the installation of all construction components to assure the ultimate in design performance.

Installation

The building must be fully enclosed, and a minimum temperature of 50°F must be maintained during the installation and for a period of 14 to 21 days (typical drying period for a 1-1/2" application) after the installation of the AccuRadiant® Floor Underlayment. The subfloor must be fine broom cleaned and free of all contaminants. Prior to pouring the AccuRadiant® Floor Underlayment, an approved AccuCrete® priming system must be used. Adequate ventilation must be provided for a period of 14 to 21 days after installation of the underlayment to ensure drying of the underlayment. For thicker applications a longer drying time may be necessary. The structural subfloor should be adequate to withstand designed loads with minimum deflection criteria of L/360. Installations over concrete slabs require the concrete to be properly cured (typically 28 days) prior to the installation of the AccuRadiant® Floor Underlayment. For any glued down floor covering, including vinyl or resilient flooring, apply an approved AccuCrete® surface sealer prior to the installation of the floor goods.



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Specifications Section 03540	Note to Architect	The following are specifications for AccuRadiant® Floor Underlayment System covering a typical installation. For special conditions and other types of applications please consult with your local AccuCrete® representative.
Part 1: General	1.1 Scope	Specify to meet project requirements.
	1.2 Qualifications	All materials, unless otherwise indicated, shall be manufactured by Allied Custom Gypsum Plasterworks® LLC and shall be installed in accordance with current printed procedures by a licensed AccuCrete® contractor.
	1.3 Delivery / Storage of Materials	All materials shall be delivered in their original unopened packages and stored in an enclosed shelter providing protection from damage and exposure to the elements. Damaged or deteriorated materials shall be removed from the site.
	1.4 Building Conditions	The building must be enclosed and maintained at a temperature of 50°F (10°C) with adequate ventilation before, during and after the installation of the AccuRadiant® Floor Underlayment. Mechanical ventilation should be used in buildings with poor ventilation.
Part 2: Materials	2.1 Products	<p>A. Gypsum Cement: AccuRadiant® Brand Floor Underlayment</p> <p>B. Primer: Use an approved AccuCrete® primer to promote a bond to the substrate. Use the manufacturer's recommended dilution and application rate. Use an approved AccuCrete® Acrylic Primer / Sealer over concrete substrate.</p> <p>C. Sand: Clean, washed sand as per specifications in the AccuCrete® Installation Manual.</p> <p>D. Water: Potable water, free of contaminants.</p> <p>E. Sealer: Use an approved AccuCrete® surface sealer over fully cured gypsum underlayment.</p>
	2.2 Mixing	Add 3.0 to 6.0 gallons of water to one 80 lb. bag of AccuRadiant® Brand Underlayment. For each 80 lb. bag of AccuRadiant® Floor Underlayment add up to a maximum of 1.0 cubic feet of sand, depending upon the compressive strength specified.
Part 3: Execution	3.1 Preparation	Subfloor should be structurally sound. Subfloor must be clean and free of all grease and any other contaminants prior to pouring the underlayment. Fill all holes or voids in substrate to prevent material leakage.
	3.2 Application Of Gypsum Underlayment	<p>A. Prior to the application of the AccuRadiant® Floor Underlayment System, the building envelope must be enclosed (all windows, doors, roofing and other openings) and the AccuRadiant® Floor Underlayment installed after the installation of drywall. Radiant thermal electric heating cable must be securely fastened to the substrate.</p>



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**Part 3:
 Execution
 Continues**

**3.2
 Application
 of Gypsum
 Underlayment**

- B.** Prime all subfloors prior to the installation of the AccuRadiant® Floor Underlayment System. Use an approved AccuCrete® primer following the recommended dilution factors.
- C.** Pour the AccuRadiant® Floor Underlayment to a minimum thickness of 3/4" over the top of the hot water tubes while spreading and finishing to a smooth surface. Excluding authorized joints, spread product in a continuous, monolithic application taking caution to not pour any wet slurry against any material that has already achieved an initial set.
- D.** General contractor shall provide continuous ventilation and adequate heat as indicated in section 1.4 above in order to rapidly remove excess moisture from the area of the installation until such time as the underlayment is dry.

**3.3
 Preparation
 for Installation of
 Glued Down
 Floor Coverings**

After the underlayment has dried, spray or roll on an approved AccuCrete® sealer at the recommended dilution with water prior to the installation of a glued down floor covering.

If the surface of the AccuRadiant® Floor Underlayment has been damaged, it is recommended that the area to be repaired is sealed with an approved AccuCrete® surface sealer. After the repair material has dried, spray or roll on an approved AccuCrete® sealer prior to the installation of a glued down floor covering.

In applications where the floor goods manufacturer requires a special adhesive, sealer, or installation system, the floor goods manufacturers' recommendations will supersede all others.

UL Designs

G577	G578	G579	G580	G581	G582	J917	J919	J920
J924	J927	J931	J957	J958	J966	J991	J994	K906
L004	L005	L006	L201	L202	L206	L208	L209	L210
L211	L212	L501	L502	L503	L504	L505	L506	L507
L508	L509	L510	L511	L512	L513	L514	L515	L516
L517	L518	L519	L520	L522	L523	L524	L525	L526
L527	L528	L529	L530	L533	L534	L535	L536	L537
L538	L539	L540	L541	L542	L543	L546	L547	L549
L550	L551	L552	L555	L556	L558	L560	L562	L563
L570	L573	L574	L576	L583	L585	L590	L592	L593
L599	M502	M503	M504	M506	M508			

More designs may be obtained. Contact us at info@accucrete.com

**Submittal
 Approvals**

Minimum Compressive Strength: _____

Project Name: _____

Architect: _____

Contractor: _____

Date: _____

Date: _____

ACG Plasterworks® LLC
 1550 Double Drive, Norman, OK 73069 toll free: 800.624.5963 www.alliedcustomgypsum.com info@accucrete.com

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