

Date: November 7, 2014
 To: Airfloor®
 RE: Allowable Use of the Airfloor® system over Insulfoam® products

To Whom It May Concern:

We have completed the review of the Airfloor® system in order to determine the appropriate use of the form system over InsulFoam® products (including InsulGrade, R-Tech, and GF Geofoam). The InsulFoam® products are intended to be used in lieu of the concrete base slab and will be covered with a non-structural sheet steel for ducting purposes. Compressive resistance values for the foam products have been limited to a 1% deformation (strain) limit to ensure elastic behavior of the foam under loading conditions.

This review was based on the following provided reference data:

1. Airfloor®. *Concrete Calculations*. Project Number 111114C: March 23, 2011.
2. California Electronic Services Company. *Airfloor Forms*. Laboratory Number 42288: 2000.
3. InsulFoam®. *InsulGrade Below Grade Insulation Systems*. Brochure #6066-0414.
4. InsulFoam®. *InsulFoam® GF*. Brochure #10002: April 1, 2011.

Appropriate use of the Airfloor® form system over InsulFoam® products is dependent on the code required load combinations of dead and live loads. Dead loads in this case are listed by the required concrete depth over the top of the Airfloor dome. Additional dead load considerations (heavy tile, mortar set flooring, etc) should be considered by the designer when choosing the appropriate dead load value in the following chart:

Compatibility of Airfloor® form system and InsulFoam® products based on required Dead and Live Load

Concrete Depth over Airfloor dome	Live Load 40 psf	Live Load 50 psf	Live Load 60 psf	Live Load 100 psf
1 ½-inches (dead load = 36.25 psf) ¹	InsulGrade IX R-Tech IV XPS Type IV EPS29	InsulGrade IX R-Tech IV XPS Type IV EPS29	InsulGrade XIV R-Tech VI XPS Type VI EPS29	InsulGrade XIV R-Tech VI XPS Type VI EPS39
2-inches (dead load = 42.5 psf) ¹	InsulGrade IX R-Tech IV XPS Type IV EPS29	InsulGrade XIV R-Tech VI XPS Type VI EPS29	InsulGrade XIV R-Tech VI XPS Type VI EPS29	InsulGrade XIV R-Tech VI XPS Type VI EPS39
3-inches (dead load = 55 psf) ¹	InsulGrade XIV R-Tech VI XPS Type VI EPS29	InsulGrade XIV R-Tech VI XPS Type VI EPS39	InsulGrade XIV R-Tech VI XPS Type VI EPS39	InsulGrade XV R-Tech VII XPS Type VII EPS46

1. Dead load calculations include concrete depth over dome, concrete required to fill form voids to top of dome, and 5 psf floor covering allowance. Concrete weight of 150 pcf was used.

Please call with any questions.

Sincerely,
 Eclipse Engineering, Inc.

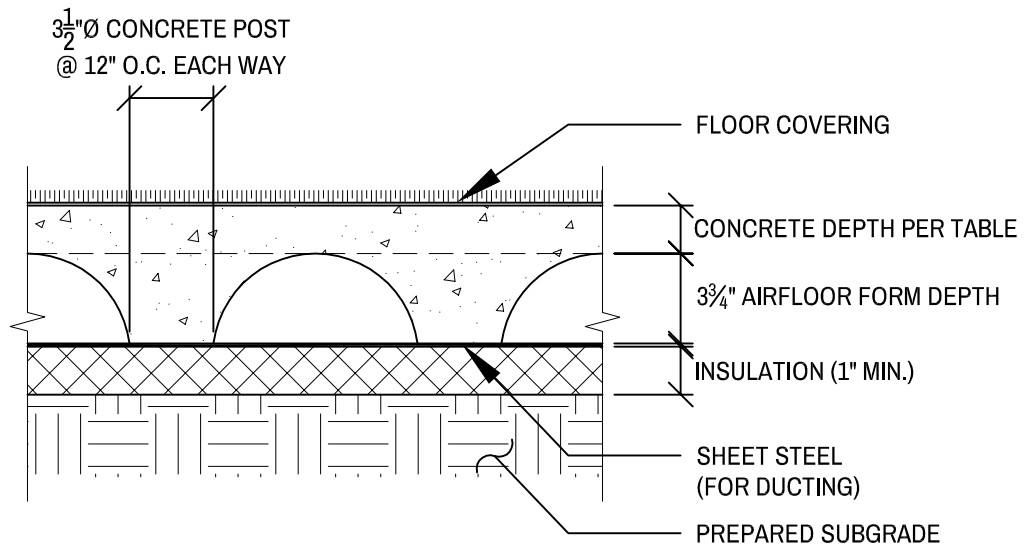
Gretchen Iman

Gretchen Iman, P.E.
 Principal Engineer

Attach: Airfloor over InsulFoam Section



11/7/2014



AIRFLOOR FORM OVER INSULFOAM

SCALE: 1 1/2" = 1'-0"