

CERTIFICATE OF INSTALLATION		CF2R-ENV-03-E
Insulation Installation		(Page 1 of 4)
Project Name:	Enforcement Agency:	Permit Number:
Dwelling Address:	City	Zip Code

If more than one person has responsibility for installation of the items on this certificate, each person shall prepare and sign a certificate applicable to the portion of construction for which they are responsible. Alternatively, the person with chief responsibility for construction shall prepare and sign this certificate for the entire construction. The signer agrees that all applicable Mandatory Measures were met. NFRC labels are not to be removed before verification by the building inspector.

Medium and light density SPF manufacturers claim various R-values per inch. In California the maximum R-value that can be claimed for ccSPF is an R-value of 5.8 per inch and for ocSPF is an R-value of 3.6 per inch unless documentation is provided showing that the product and/or manufacturer has a current ICC Evaluation Service Report (ESR) that shows compliance with *Acceptance Criteria for Spray-Applied Foam Plastic Insulation--AC377*.

A. ROOF/CEILING INSULATION							
1	2	3	4	5	6	7	8
Framing Material	R-value	Assembly U-factor	Loose Fill/SPF Depth	Above Deck R-value	Below Deck R-value	Brand	Insulation Type ¹

B. WALL INSULATION						
1	2	3	4	5	6	7
Framing Material	R-value	Assembly U-factor	Loose Fill/SPF Depth	Continuous Insulation R-value	Brand	Insulation Type ¹

C. MASS WALL INSULATION						
1	2	3	4	5	6	7
Above or Below Grade	Interior Wall R-value	Exterior Wall R-value	Assembly U-factor	Mass Thickness	Brand	Insulation Type ¹

D. RAISED FLOOR INSULATION					
1	2	3	4	5	6
Floor Type (Raised Concrete or Framed)	R-value	Assembly U-factor	Loose/ SPF Fill Depth	Brand	Insulation Type ¹

E. SLAB FLOOR/PERIMETER INSULATION (see F. for insulation requirements for heated slabs)						
1	2	3	4	5	6	7
Floor type (Heated Slab ² , Slab on Grade)	Thickness (inches)	R-value	Vertical Insulation Depth (ft)	Horizontal Insulation Distance (ft)	Brand	Insulation Type ¹

1. List the type of insulation used: Batt, Loose fill, SPF, Rigid, Other: _____
2. Heated Slab requires perimeter insulation in all climate zones

F. HEATED SLABS
All heated slabs shall be insulated as required by Section 110.8(g).

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Insulation shall be installed from the top of the slab, down 16 inches or to the frost line, whichever is greater. Climate zones 1-5 require R-5, climate zone 16 requires R-10.

Alternatively, vertical insulation from top of slab at inside edge of outside wall down to the top of the horizontal insulation. Horizontal insulation from the outside edge of the vertical insulation extending 4 feet toward the center of the slab in a direction normal to the outside of the building in plan view. Climate zones 1-5 require R-5, climate zone 16 requires R-10 vertical and R-7 horizontal.

G. MINIMUM MANDATORY MEASURES

Insulation	110.8(a): All installed Insulation is certified and listed with Department of Consumer Affairs, Standards for Insulating Material.
	110.8(b): Urea formaldehyde foam insulation is protected by 4 mil polyethylene vapor retarder.
	110.8(c): Flame spread and smoke density requirements of CBC are met.
Raised Floor	150.0(d): All raised wood-frame floor have a minimum R-19 insulation or equivalent U-factor
Slab Floor/Perimeter	150.0(l): Water absorption rate for the insulation material alone without facings is no greater than 0.3%; water vapor permeance rate is no greater than 2.0 perm/inch and is protected from physical damage and UV light deterioration.
Above Grade Exterior Wall	150.0(c)1: All 2x4 wood-frame walls have a minimum R-13 insulation or equivalent U-factor. 150.0(c)2: All 2x6 wood-frame walls have a minimum R-19 insulation or equivalent U-factor.
Roof/Ceiling	150.0(a)1: All wood-frame ceiling have a minimum R-30 insulation or equivalent U-factor.
Vapor Retarder	150(g)1: Class I or II vapor retarder installed on conditioned space side of insulation in exterior walls, vented attics, and unvented attics with air-impermeable insulation in Climate Zones 14 and 16.
	150(g)2: Class I or II vapor retarder installed on earth floor of unvented crawlspaces in Climate Zones 1-16.
	150(g)3: Class I or II vapor retarder installed on earth floor of raised floor buildings with controlled ventilation crawlspaces.
The compliance approach may require insulation that exceeds these mandatory minimums. Refer to the CF1R for the minimum requirements for this building.	

H. QUALITY OF ALL INSTALLED INSULATION

1	Installed insulation R-values the same or greater than listed on the CF-1R.
2	No gaps or voids between the insulation and framing.
3	No gaps between the sides or ends of batts.
4	Loose-fill insulation installed to the minimum installed weight per square foot per the manufacturer's labeled R-value.
5	Batt insulation is not compressed (no stuffing of the insulation into the cavity) and is installed to its full thickness.
6	Insulation is cut around obstructions like electrical boxes.
7	Batt insulation is delaminated around all plumbing and electrical lines in ceilings, walls and floors.
8	Band joists are insulated to the same R-value as the wall.
9	In all narrow cavities the insulation shall be cut to fit or filled with expanding foam.
10	An air barrier is installed at all exposed edge of insulation.
11	Insulation was installed per manufacturer instructions.

I. WALL INSULATION QUALITY

1	Electrical boxes shall be insulated between the sheathing and the rear of electrical boxes. Batts shall be cut to fit around electrical boxes.
2	Low expanding foam used around windows and doors, if allowed by the manufacturer. If not allowed, use batt insulation cut to fit or backer rod.
3	Wall insulation behind tubs and showers installed before tub, shower, and fireplace installation.
4	Insulation was installed to the required R-value in corner channels and wall intersections before installing exterior siding.
5	All walls of interior closets for HVAC and/or water heating equipment contain the same R-value as the exterior walls.
6	Electrical panel, if in insulated wall, must be air tight and insulated behind the panel.

J. CEILING/ROOF INSULATION QUALITY

1	Insulation extends to the outside edge of the exterior top plates and is flush against any ventilation dams/baffles.
2	Insulation is in direct contact with ceiling so there are no gaps between the ceiling and the insulation.
3	Attic access doors are insulated to the same R-value required by the CF-1R for roof insulation and the insulation is permanently

Registration Number:

Registration Date/Time:

HERS Provider:

CA Building Energy Efficiency Standards - 2013 Residential Compliance

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	attached using adhesive or mechanical fasteners. Preferred method is rigid insulation.
4	Attic access must have a dam around the access to at least the same depth as the insulation.
5	Chimneys and flues require sheet metal collar around the stack. The collar must be at least as tall as the depth of the insulation. The collar shall be 2" from the chimney/flue unless code requires otherwise. The collar must be sealed to prevent air leakage.
6	For chimneys and flues the insulation shall be in contact with the sheet metal collar.
7	Can lights are covered with insulation to the same depth as required by the CF-1R for ceiling insulation. If not an area weighted calculation is required.
8	Insulation cut to fit around cross bracings in attic.
9	Walkways and mechanical platforms shall be insulated to the same depth as required by the CF-1R for ceiling insulation. If not an area weighted calculation is required.
10	An air barrier is installed at all exposed edge of insulation. Example above a kneewall.

K. RAISED FLOOR INSULATION QUALITY	
1	Insulation in full contact with subfloor.
2	Insulation hangers spaced at 18 inches or less.
3	Netting or mesh can be used if the cavity under the floor is filled and in contact with the subfloor.

L. FLOOR ABOVE GARAGE INSULATION QUALITY	
1	Insulation must be in full contact with subfloor if the air barrier is at the band joist at the garage house wall.
2	Insulation hangers spaced at 18 inches or less.
3	Netting or mesh can be used if the cavity under the floor is filled and in contact with the subfloor.
4	If air barrier is of the parameter of the garage below the conditioned subfloor then the insulation may be placed on the garage ceiling. Perimeter of subfloor must also be insulated.

M. CANTILEVERED FLOOR INSULATION QUALITY	
1	Insulation in full contact with cantilevered subfloor. Insulation hangers spaced at 18 inches or less. Netting or mesh can be used if the cavity under the floor is filled and in contact with the subfloor.
2	Blocking shall be installed between joists at the intersection of the cantilevered floor and downstairs exterior wall and sealed. Insulation shall be placed on both sides of this block.

N. ATTACHED PORCH ROOF INSULATION QUALITY	
1	Insulation shall be placed above the wall at the intersection of the porch roof and exterior wall.
2	Where truss framing is used, blocking shall be used at the top and bottom of each wall/roof section and insulated.

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT		
1. I certify that this Certificate of Installation documentation is accurate and complete.		
Name:	Signature:	
Company:	Date:	
Address:	CEA or CEPE or HERS Certification # If Applicable:	
City/State/Zip:	Phone:	
RESPONSIBLE PERSON'S DECLARATION STATEMENT		
<p>1. I certify under penalty of perjury, under the laws of the State of California, the information provided on this form is true and correct.</p> <p>2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for construction, or an authorized representative of the person responsible for construction (responsible person).</p> <p>3. I certify that the installed features, materials, components, or manufactured devices identified on this certificate (the installation) conforms to all applicable codes and regulations, and the installation is consistent with the plans and specifications approved by the enforcement agency.</p> <p>4. I reviewed a copy of the Certificate of Compliance (CF1R) approved by the enforcement agency that identifies the specific requirements for the installation. I certify that the requirements detailed on the CF1R that apply to the installation have been met.</p> <p>5. I will ensure that a completed, signed copy of this Certificate of Installation shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a signed copy of this Certificate of Installation is required to be included with the documentation the builder provides to the building owner at occupancy.</p>		
Company Name: (Installing Subcontractor or General Contractor or Builder/Owner)		Type of Insulation Installed
Responsible Person's Name:	Responsible Person's Signature:	
CSLB License:	Date Signed:	Position With Company (Title):

CERTIFICATE OF INSTALLATION - USER INSTRUCTIONS	CF2R-ENV-03-E
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