



Air Seal Balloon Framing at Subfloor

Job Aid for Air Seal Floor Above Unconditioned Subspace (Basement or Crawl Space) Badge

Aligns With Standard Work Specifications 3.0101.1, 3.0104.1

BEFORE



Balloon-framed walls have an open cavity that runs from the basement to the attic, allowing for large amounts of air flow via the stack effect.

1



Measure opening.

2



Cut blocking material to fit.

3



Seal all edges with caulk, foam, or mastic.

AFTER



Securely sealing off these cavities prevents air movement, as well as providing a barrier to hold in insulation and providing fire blocking.



Checklist

Air seal floor above an unconditioned subspace (basement or crawl space)

DESIRED OUTCOME

Consistent pressure boundary between conditioned and unconditioned space.¹

- ☐ Remove existing insulation as needed to access air sealing locations.
- ☐ Ensure all wall cavities are enclosed on all six sides (e.g., have top and bottom plates).
Install additional blocking where necessary.
- ☐ Seal the following cracks, penetrations, and chases to prevent air movement with the appropriate materials based on hole sizes according to the AIR SEALING MATERIALS GUIDELINES table below:
 - ☐ Chases
 - ☐ Plumbing penetrations
 - ☐ Electrical penetrations
 - ☐ Chimney/flue²
 - ☐ Ductwork penetrations into subspace
 - ☐ Any other holes/penetrations in the floor plane/boundary.
- ☐ Clean work area.

| AIR SEALING MATERIALS GUIDELINES | |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| HOLE/GAP SIZE | MATERIALS/NOTES |
| 1/4" or less (small) | Caulk |
| 1/4"–2" (medium) | One-component foam or mastic |
| 2"–3" (large) | Two-component foam |
| 3" or larger (extra-large) | Infill material installed that will not bend, sag, or move Support material (e.g., 2X4) installed for spans wider than 24" |

1. Relevant Standards: 3.0101.1, 3.0104.1

2. Materials must be appropriate for high-temp situations.

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For more information, visit: energy.gov/scep

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