

Technical Bulletin: Air Barriers and Sealing Best Practices

Residential New Construction Program

Air barriers and sealants have the potential to make a large impact on homes in the RNC Program. To ensure homes receive their maximum incentives, raters and homebuilders should follow the air barrier and sealing best practices outlined in this technical bulletin.

Air barriers and sealants impact incentives in two main ways:

1. They prevent air leakage to help homes meet 4.00 ACH50.
2. They fully encapsulate insulation preventing grade III installation.

Air barriers can be flexible (such as Tyvek house wrap) or rigid (such as Thermo-Ply structural sheathing), but the best performing homes utilize rigid products. Below are the best practices to follow when installing air barriers followed by some example photographs.

- For housewrap and Tply, fasten with button caps spaces 6-8".
 - Picture frame air barriers with foam or tape.
 - Avoid cardboard as it is permeable and will degrade over time.
 - Rigid air barriers are the easiest to install and should be used when possible.
 - Avoid using caulk for gaps larger than ¼".
 - Use foam for any gap smaller than 1". If a gap is larger than 1", cover with an air barrier and seal.
- Ensure all the following locations have air barriers:
 - Double Walls
 - Stairs
 - Dropped ceilings
 - Rim Joists
 - Fireplaces
 - Kneewalls
 - Chases
 - Any wall that will not have drywall

