



**HIGHER PERFORMANCE**

**&**

**LOWER COST**



# INSULATION

Foundation

Exterior

Wall

**AIRTIGHTNESS**

**ENERGY USE**



## Foam Foundation



## INSULATION

Foundation

Exterior

Wall

AIRTIGHTNESS

ENERGY USE



## Benefits

- Faster setup & pour
- Begin framing the next day
- R-value=68
- Built-in radon & gas barrier
- Lower labor cost



## INSULATION

Foundation

Exterior

Wall



## Performance Analysis

✓ Effectiveness

✗ Materials cost

✓ Labor cost

✓ Timetable

✓ Interest cost

**AIRTIGHTNESS**

**ENERGY USE**



# INSULATION

Foundation

Exterior

Wall

# AIRTIGHTNESS

# ENERGY USE



**Premium Sheeting w/foam**





## INSULATION

Foundation

Exterior

Wall

**AIRTIGHTNESS**

**ENERGY USE**



## Benefits

- Air & water barrier
- Thermal break
- Insulation

## Worries

- No shear strength (with foam)
- Long-term performance
- Nails in the field
- Premium cost



## INSULATION

Foundation

Exterior

Wall

**AIRTIGHTNESS**

**ENERGY USE**



## Performance Analysis

**X** Effectiveness (air barrier)

**X** Materials cost

**X** Labor cost

**X** Timetable

**X** Attaching cladding



## INSULATION

Foundation

Exterior

Wall

**AIRTIGHTNESS**

**ENERGY USE**

## Exterior Insulation Recommendation

OSB Sheeting

+

Kingspan GreenGuard HPW

+

EPS Geo Rigid Foam

# INSULATION

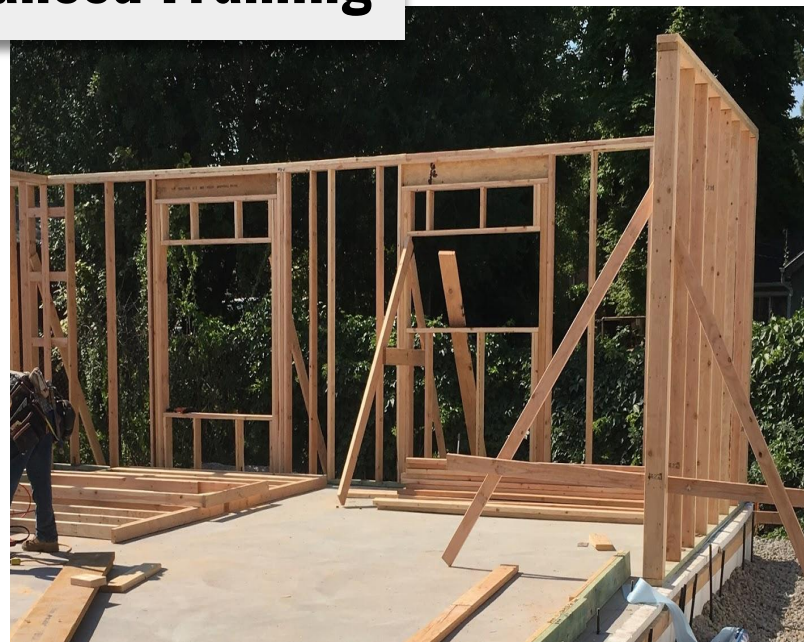
Foundation

Exterior

Wall



**2x6 Advanced Framing**



**AIRTIGHTNESS**

**ENERGY USE**



## INSULATION

Foundation

Exterior

Wall



## Benefits

- Improved insulation capacity
- 15-17% less lumber
- 30% faster
- Stacked framing from truss to foundation

**AIRTIGHTNESS**

**ENERGY USE**

## INSULATION

Foundation

Exterior

Wall



**AIRTIGHTNESS**  
**ENERGY USE**

## Performance Analysis

- ✓ Effectiveness
- ✓ Cost
- ✓ Timetable

## Growing Pains

- Framing education
- Sub-contractor training
- Continuous monitoring



**INSULATION**

**AIRTIGHTNESS**

Spray Foam

AeroBarrier

**ENERGY USE**



**Spray Foam**



## INSULATION

## AIRTIGHTNESS

Spray Foam

AeroBarrier

## ENERGY USE



## Benefits

- Air barrier
- Some insulation value

## Worries

- Rigid & prone to crack
- Unhealthy
- Off-gassing
- Expensive
- Installation error



**INSULATION**

**AIRTIGHTNESS**

Spray Foam

AeroBarrier

**ENERGY USE**



## Performance Analysis

**X** Long-term durability & effectiveness

**X** Materials cost

**X** Labor cost

**X** Timetable

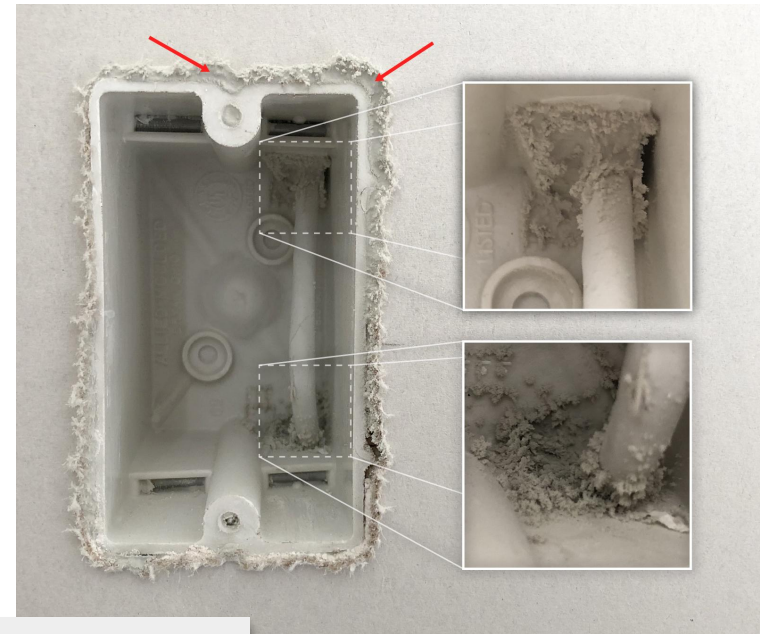
**INSULATION**

**AIRTIGHTNESS**

Spray Foam

AeroBarrier

**ENERGY USE**



**AeroBarrier**





**INSULATION**

**AIRTIGHTNESS**

Spray Foam

AeroBarrier

**ENERGY USE**



## Benefits

- Air barrier
- 100% guaranteed
- Short install time
- Non-toxic
- Flexible seal
- Whole-building solution

**INSULATION**

**AIRTIGHTNESS**

Spray Foam

AeroBarrier

**ENERGY USE**



## Performance Analysis

- ✓ Effectiveness
- ✓ Cost
- ✓ Timetable
- ✓ 50 year lifespan



**INSULATION**

**AIRTIGHTNESS**

**ENERGY USE**

**ERV**

**ENERGY RECOVERY VENTILATOR**



**INSULATION**

**AIRTIGHTNESS**

**ENERGY USE**

**ERV**



## Benefits

- Mechanical ventilation
- Energy exchanger
- Beefy, 10-year filters
- Lower utility bills
- Humidity control
- Compatible with standard HVAC setups



**INSULATION**

**AIRTIGHTNESS**

**ENERGY USE**

**ERV**



## Performance Analysis

- ✓ Efficient
- ✓ Cost
- ✓ Clean indoor air
- ✗ Homeowner maintenance