Examination during construction

Checking the air barrier for quality assurance purposes

Purpose of an examination during the construction process

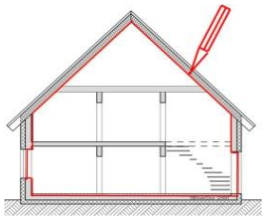
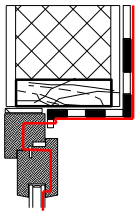
The examination of the air barrier during the ongoing construction process serves **quality assurance of air barrier**. Defects in the component layers, which assume the function of airtightness according to plan, the so-called primary leakages, can be easily located during this construction phase and eliminated without great effort.

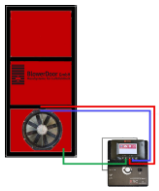
- **Early leakage detection at negative pressure difference** as long as the air tightness layers are still accessible

  → This enables avoidable primary leaks to be detected and eliminated at low cost and with little effort.

- First **estimation of a characteristic value** e.g. simplified with a one-point measurement (e. g. air change rate or air permeability)

Timing of examination test during the construction process

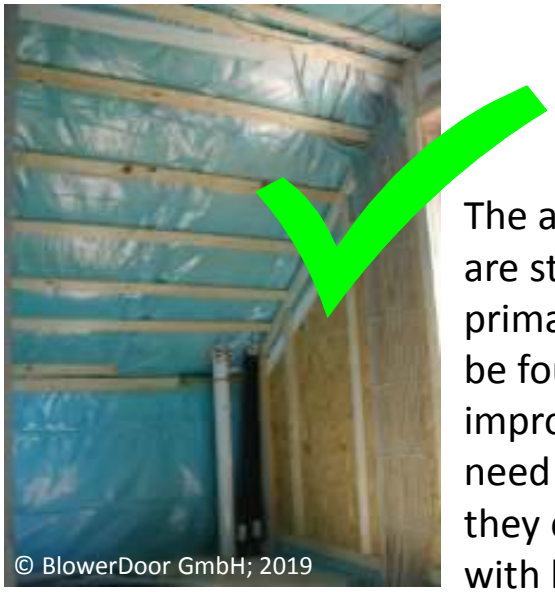




- Determining the limit value
- Establishing a detailed plan of the airtight envelope
- **Self-monitoring during implementation as early as possible in the construction process when the air barrier is still accessible**
- Conducting a final BlowerDoor test
- Measurement of air permeability in existing buildings

When is the right time for the BlowerDoor measurement during construction process?

The quality monitoring is carried out when the airbarrier is still accessible and can be improved.



The airtight layers are still accessible; primary leaks can be found. If improvements need to be made, they can be done with little effort .

In this example, the planned air barrier is already covered: Eliminating the actual defects in this state of construction is complex.

Measuring equipment

- Minneapolis BlowerDoor Standard or BlowerDoor MiniFan for a one-point measurement with DG-1000 or DG-700

- Device for leakage detection, e.g.
  - Thermal anemometer
  - Fog generators,
  - Thermographic camera