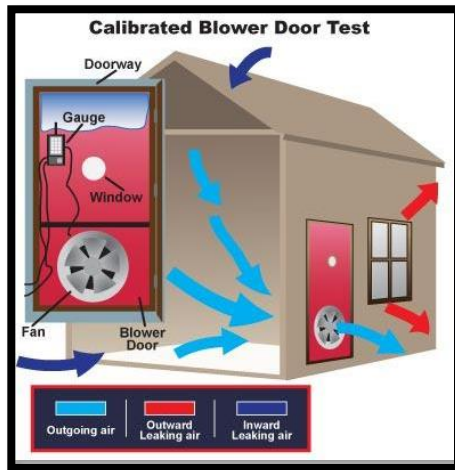


## 2021 Washington State Energy Code (WSEC) Residential Significant Changes: Air Leakage

**BEGINNING JULY 1, 2023**



In new construction of single-family homes, duplexes, and townhouses the air leakage rate must be tested and be a **maximum of 4.0 air changes per hour (ACH)**, reduced from 5.0 ACH in the previous code edition.

For full code text, including testing procedures, see 2021 WSEC Section R402.4

Figure 1 Blower door test (Source: [Technically Speaking: What the Blower Door Test Tells You](#) | [Building Performance Institute, Inc. \(bpihomeowner.org\)](#)).

Electrical and communication outlet boxes installed in the building thermal envelope must now be:

- Tested in accordance with NEMA OS 4, *Requirements for Air-Sealed Boxes for Electrical and Communication Applications*
- Have an air leakage rate of not greater than 2.0 cubic feet per minute

To demonstrate this, these boxes must be marked "NEMA OS 4" or "OS 4" and be installed per the manufacturer's instructions and with any supplied components required to achieve compliance with NEMA OS 4.

For full code text, see 2021 WSEC Section R402.4.6

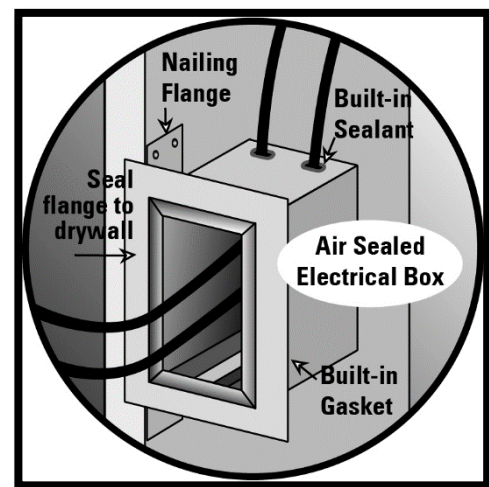


Figure 2 Air Sealed Electrical box (Source: [Air Sealing Electrical Wiring](#) | [Building America Solution Center \(pnsl.gov\)](#)).

This handout summarizes one significant change in the 2021 Washington State Energy Code (WSEC) for those buildings defined in the code as *Residential Buildings*. See complete code text for details.