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## **How realistic are air leakage rates in CASE study of air barriers**

This comment is in response the question of how rigorous and realistic these air leakage rates are:

- a. No continuous air barrier â€“ 1.1 cfm/ft<sup>2</sup> @75 Pa
- b. Continuous air barrier only, not verified â€“ 0.7 cfm/ft<sup>2</sup> @75 Pa
- c. Air barrier + field inspection â€“ 0.5 cfm/ft<sup>2</sup> @75Pa
- d. Air barrier + testing â€“ 0.4 cfm/ft<sup>2</sup> @75Pa

The National Institute of Standards and Technology Engineering Lab has maintained a large database of U.S. commercial building airtightness measurements for decades. This is the largest and most cited database of such data. Our most recent publication of this data can be found here

[https://www.researchgate.net/publication/284044735\\_Analysis\\_of\\_US\\_Commercial\\_Building\\_Envelope\\_Air\\_Leakage\\_Database\\_to\\_Support\\_Sustainable\\_Building\\_Design](https://www.researchgate.net/publication/284044735_Analysis_of_US_Commercial_Building_Envelope_Air_Leakage_Database_to_Support_Sustainable_Building_Design); however, we currently have data available for well over 1000 commercial, institutional and military buildings of a wide range of sizes, ages, styles, etc. The CASE study team consulted with us in choosing the above air leakage values for their report. While there is not data for buildings to perfectly match the listed categories, the selected values are reasonable estimates based on analysis of this data.