CONSTRUCTION TECHNOLOGY

Chapter 25: Airtightness

1. Airtightness is defined as:

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2. State the airtightness requirement for a building designed and built to meet the Passivhaus standard.

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3. Why is it essential that a building is made airtight?

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4. Given the following data, calculate the heat loss per annum due to air leakage.

floor area:	135m^2
air leakage rate:	7$m^3/m^2.h$
heat capacity of air:	0.33Wh/m^3K
mean indoor air temperature:	19°C
mean outdoor air temperature:	10°C

5. What environmental conditions does a typical airtightness test try to replicate?

6. Outline the procedure used to test the airtightness performance of a structure:

7. Why is an airtightness test carried out under both positive and negative pressure?

8. How are leaks found during an airtightness test?.