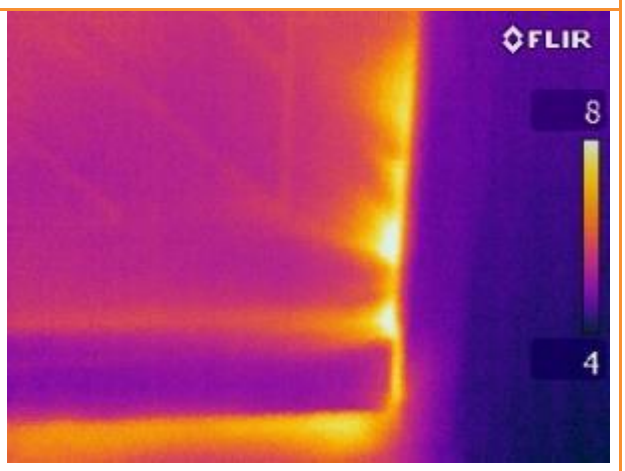
Common Leakage Sites no.4

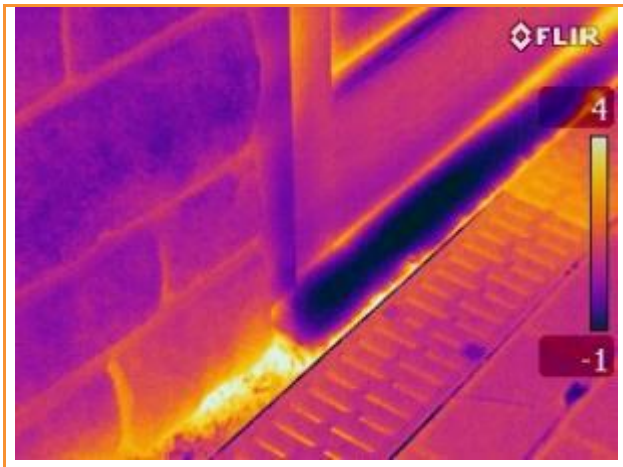
Through doors – particularly double doors.

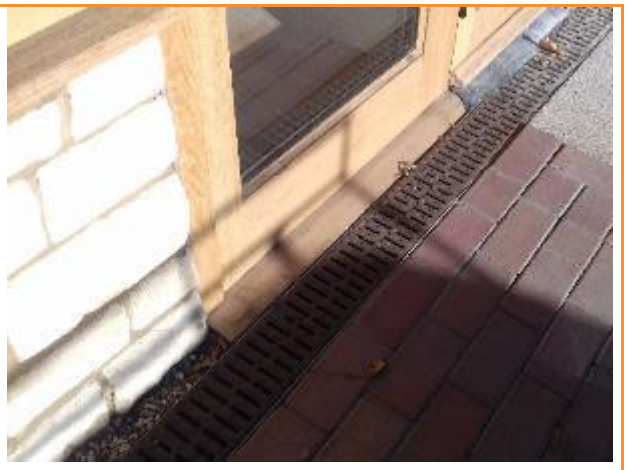
In this instance air is leaking from outside through the fabric of the door itself, or in the case of double doors, through an inadequate seal where the doors meet. Doors with inset glass or wooden panels may leak around the joins or panel edges, but also letterboxes, keyholes and catflaps are known to be particularly common sources of very bad leaks. It has also been noted that the trickle vents fitted to modern sealed units such as patio doors frequently leak very badly, even when closed.

Building Fabric Leakage 4: Through doors – particularly double doors

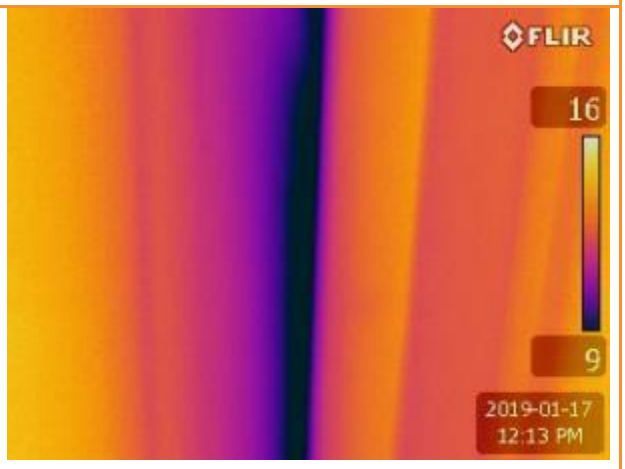


4.1: Major leakage along the side of external door whilst house is pressurised.

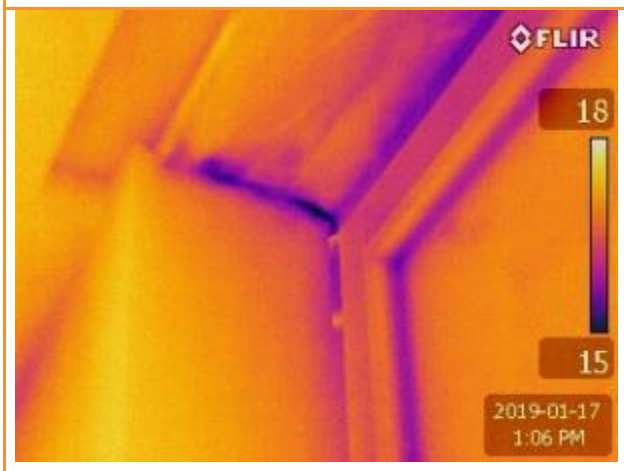




4.2: External thermographic image whilst building is pressurised, showing leakage at side of ground floor doorway.

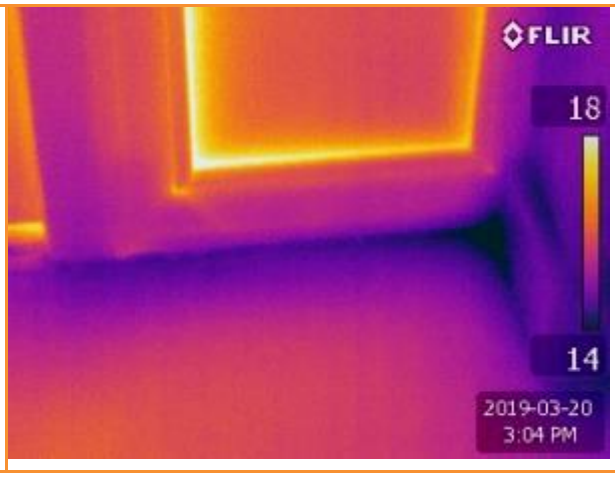


4.3: Internal thermographic image whilst house is depressurised showing leakage on meeting rail of French windows where draughtseals are ineffective.

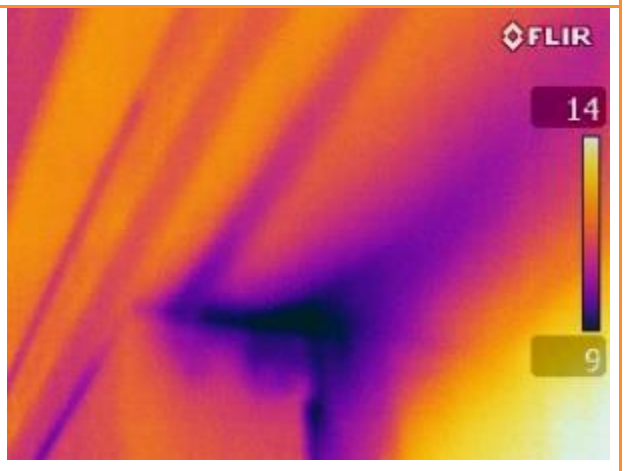


4.4: Internal thermographic image whilst house is depressurised showing leakage at top of large sliding doors.

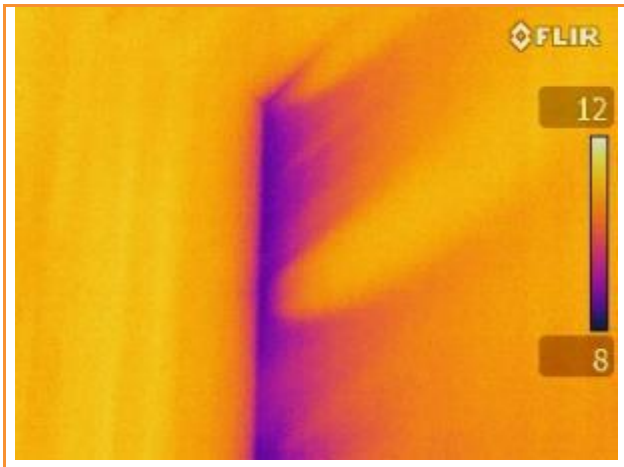
4.5: Internal thermographic image whilst house is depressurised showing leakage at bottom of French windows where sealing is incomplete.

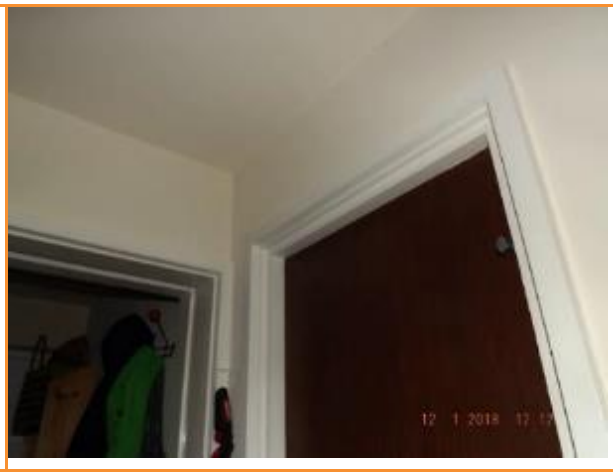


4.6: Internal thermographic image whilst house is depressurised showing leakage at base and right side of rear door.

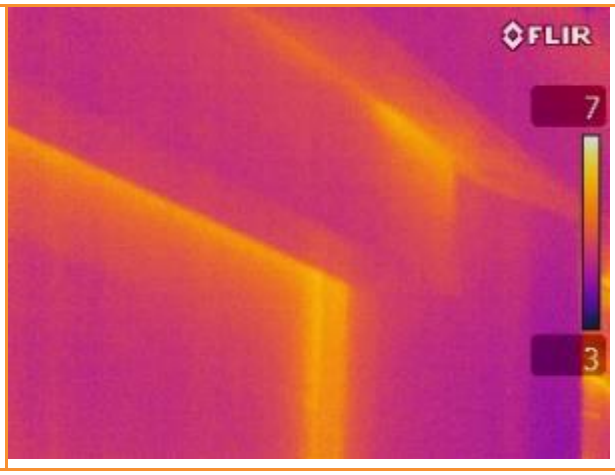


4.7: Internal thermographic image whilst newbuild house is depressurised showing leakage at head of large sliding door.

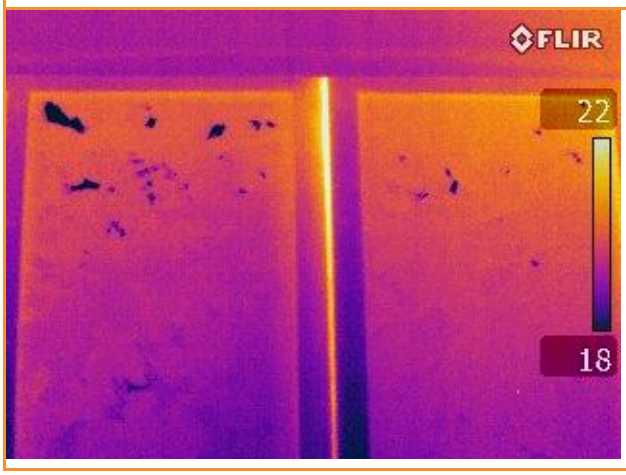




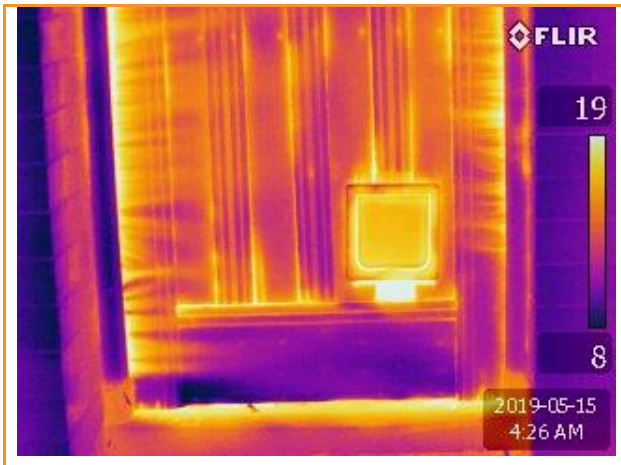
4.8: Internal thermographic image whilst house is depressurised showing leakage on side of internal door to unheated garage.



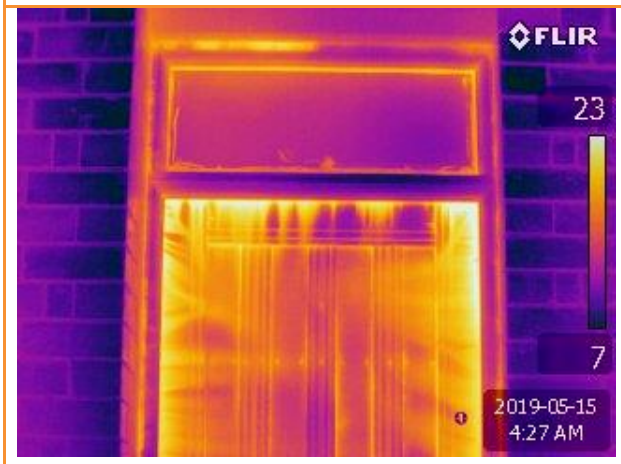
4.9: External thermographic image whilst house is pressurised showing leakage at side & top of garage door, connected through internal doorway to interior of house.



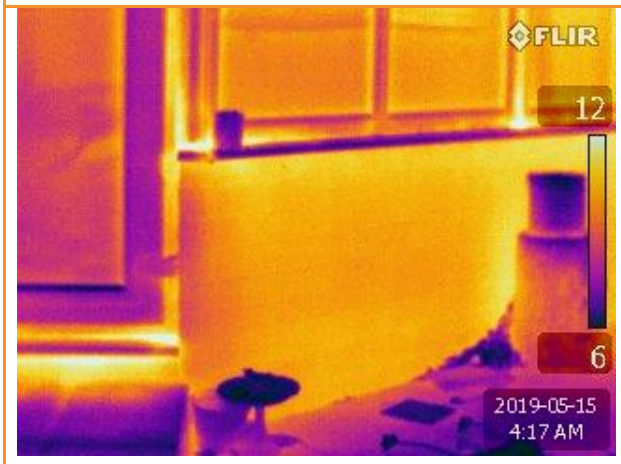
4.10: External thermographic image whist house is pressurised showing substantial leakage along the vertical meeting rail between a pair of double doors.



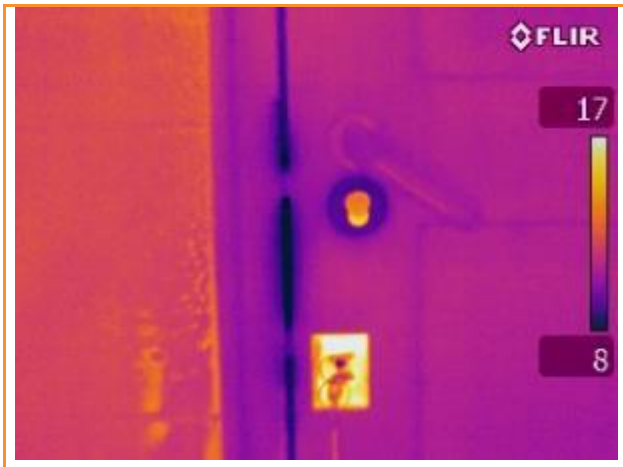
4.11: External thermographic image whilst house pressurised showing leakage around the side door, both through the gap beneath the door but also at the sides and through the joints in the wooden door itself



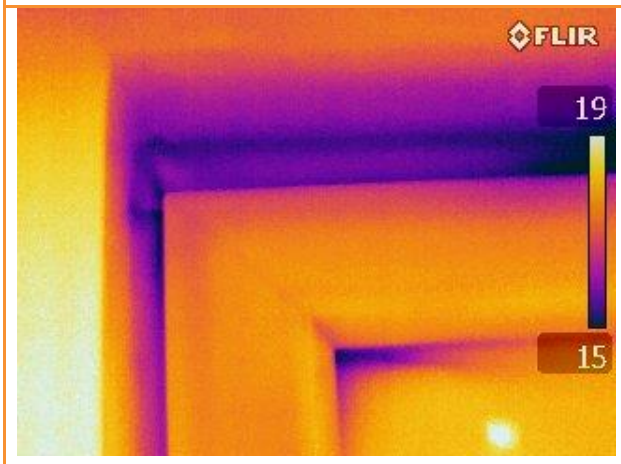
4.12: External thermographic image whilst house pressurised showing leakage around the side door, both at the top and sides of the door, but also across the top of the glazed panel above the door



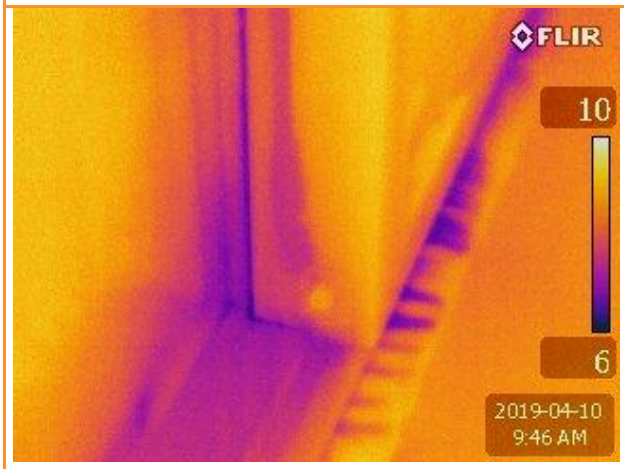
4.13: External thermographic image whilst house pressurised, showing substantial leakage at base of conservatory doors. Also, in several places along the top of the stub wall



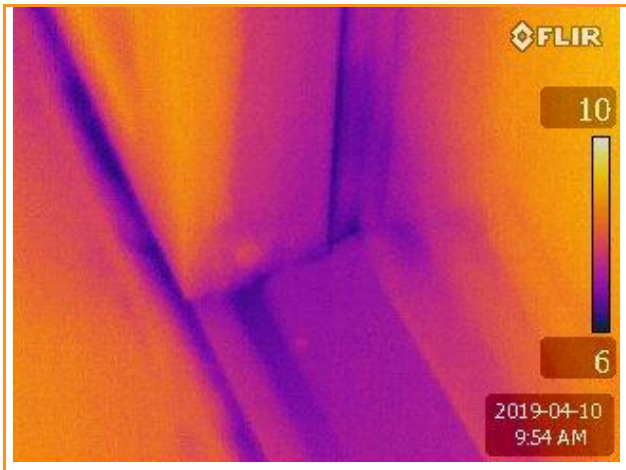
4.14: Internal thermographic image whilst house is depressurised showing leakage along the side of lock on external kitchen door.



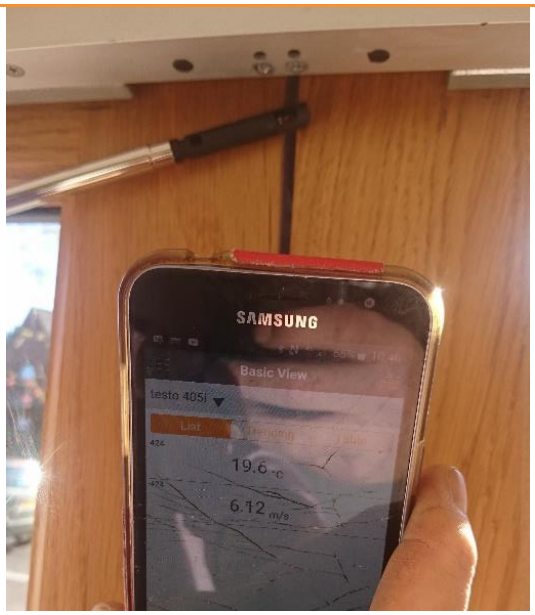
4.15: Thermographic image of leaks at inside top left of front door



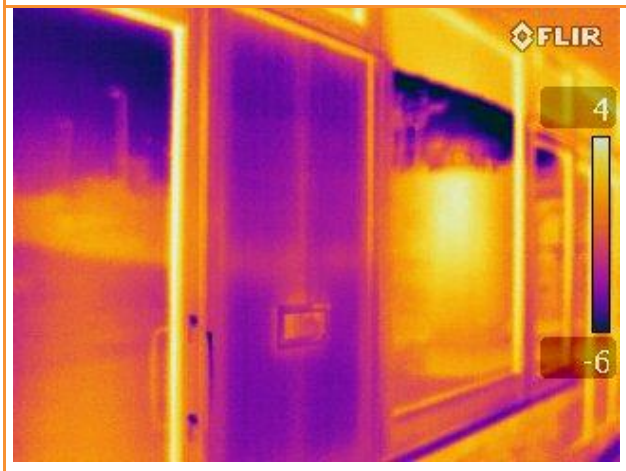
4.16: Thermographic image showing numerous leakage locations beneath the threshold of the first set of large sliding doors, also along the vertical meeting rail, particularly at its base

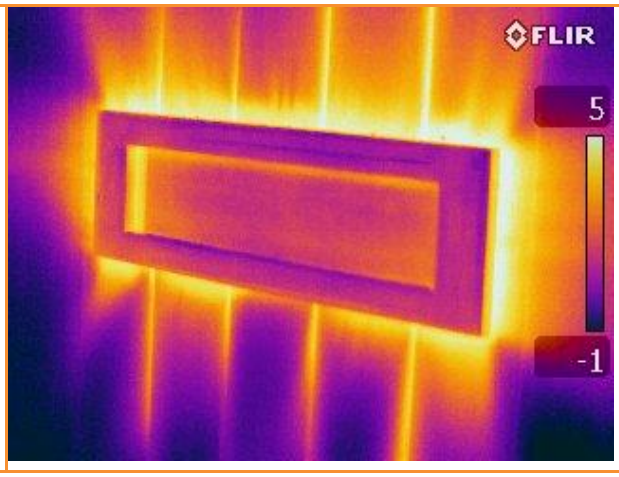


4.17: Thermographic image showing leakage beneath the threshold of the second set of large sliding doors, also along the vertical meeting rail, again particularly at its base



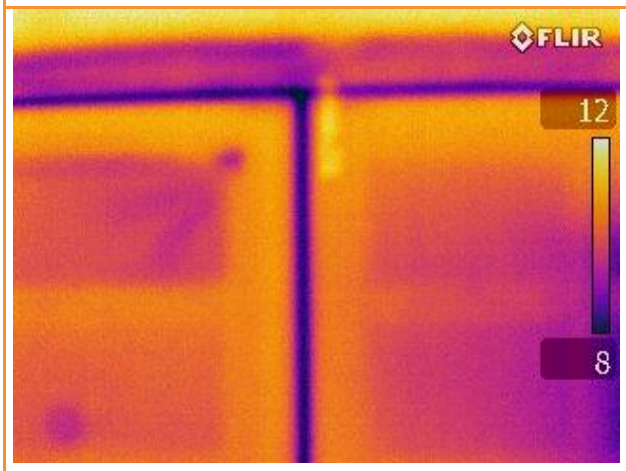
4.18: Close up of leaky gap at top of main entrance doors, with detail showing air velocity of 6.12m/s air movement recorded through gap at top of front doors using a hot wire anemometer

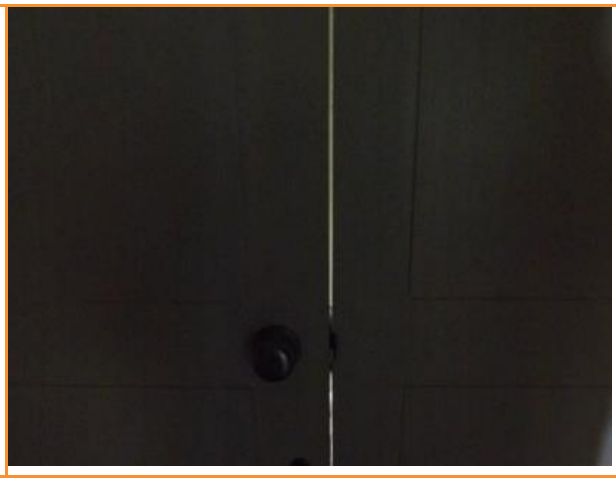




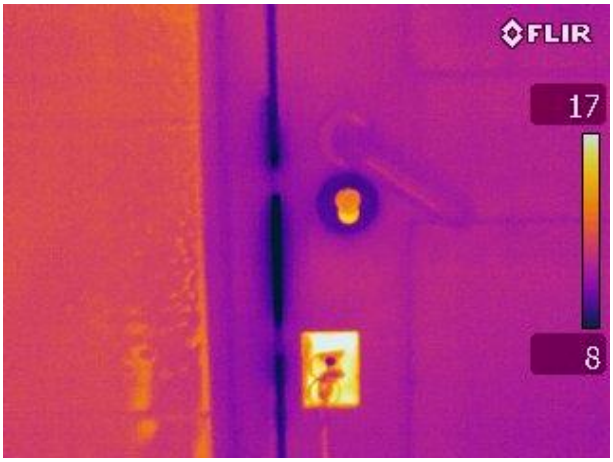
4.19: Thermographic image showing heat loss on letter box before building pressurised (left), then showing dramatically worsened leakage after building pressurised (right)

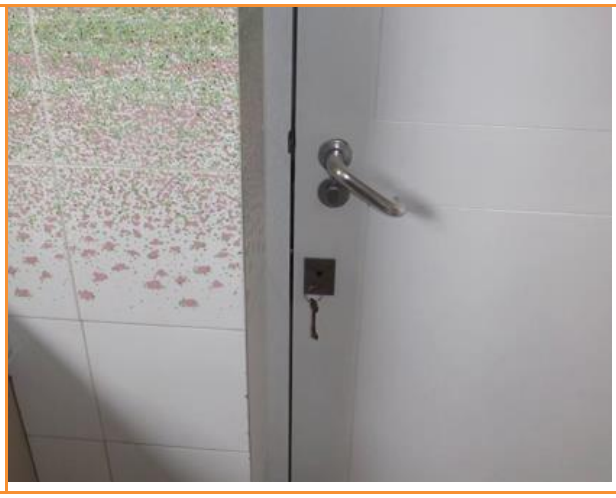
4.20: Thermographic image showing substantial leakage on lower portion of overlap of rear sliding doors





4.21: Thermographic image showing leakage at top of front door, also between door leaves





4.22: Thermographic image showing leakage beside kitchen door lock during depressurisation