

CHAPTER 10

BONDS IN BRICKWORK



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Reasons for Bonding

Bonding brickwork means the arrangement in brickwork so that the units are tied together to form a solid mass. The load is then evenly distributed along the length of the wall.

These drawings show what happens to a wall that is not bonded and one that is bonded.

There are two methods of lapping:

- i. The half brick lap
- ii. The quarter-brick lap, also known as the half bond and the quarter bond.

If bricks are so placed that no lap occurs, the cross joints or perpend are directly over each other, and we have what is known as 'straight joints', which should be avoided wherever possible.

The rules of bonding are:

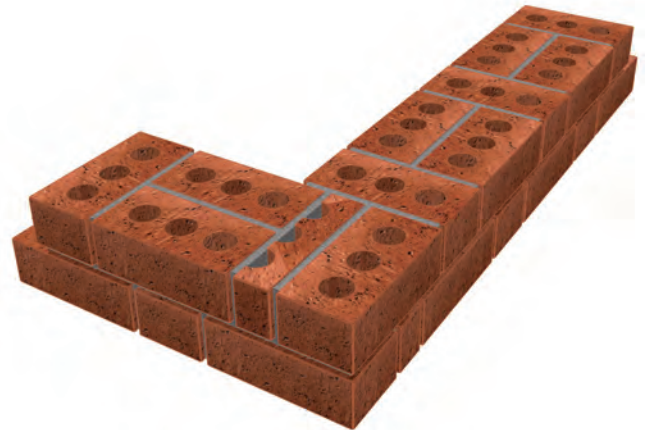
3. Use half or quarter bond, and avoid straight joints.
4. Use the same bond throughout the job.

Bonding

There are basically three types of bonds used in South African construction and examples of all three can be seen in all towns and cities, viz: Flemish Bond, English Bond and Stretcher

Flemish Bond

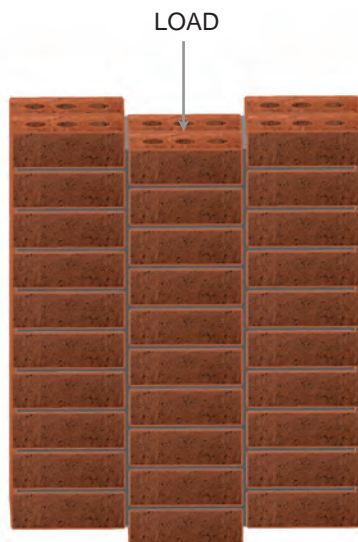
Consists of headers and stretchers in the same course.



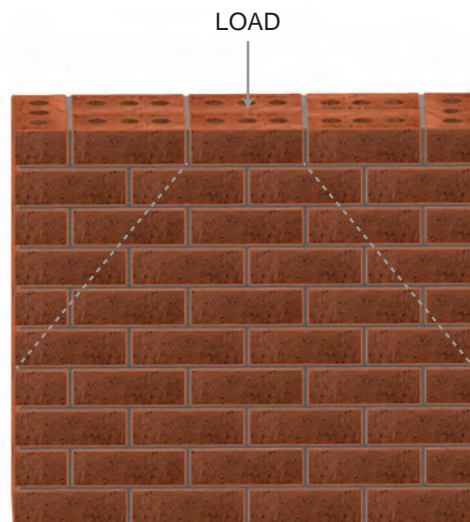
10.2 - Flemish Bond

Flemish Garden Wall Bond

Consists of a header followed by two or three stretchers in the same course.



Unbonded Brick Wall
INCORRECT



Bonded Brick Wall
CORRECT

10.1 - Difference between a bonded and unbonded brick wall

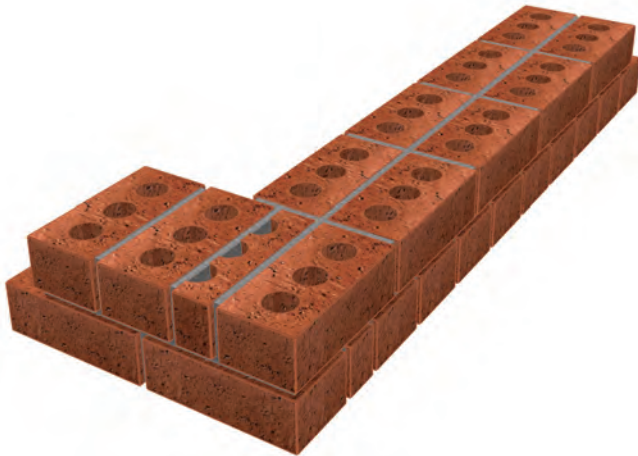
English Bond

Consists of alternate courses of headers and stretchers. This bond is believed to be the strongest bond because of the header across bonding. It is usually employed in foundation walling behind the half-brick outer skin, and for retaining walls.



DID YOU KNOW?

Bricks are one of the oldest known building materials dating back to 7000BC where they were first found in Southern Turkey and Jericho.



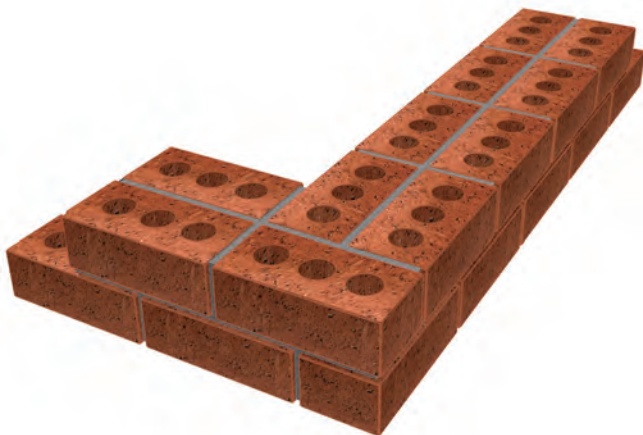
10.3 - English Bond

English Garden Wall Bond

There is a variation sometimes used on an English bond, where the header course is followed by as many as three to five stretcher courses. This bond is referred to as English garden wall bond.

Stretcher Bond

Consists of bricks laid lengthways along the line. This is by far the most commonly used bond in South Africa. In cavity wall construction this is the most economical bond to employ.



10.3 - English Bond



NOTES

Horizontal ruled lines for writing notes, starting from the section header and extending across the main body of the page.