

## ***WHY DO BRICKS HAVE HOLES?***

**Bricks can come without holes when they are intended to be laid down on floor for pavements.**

**But with vertical structural they are made with holes to improve stability since when they are built, holes are faced downwards on mortar which allow some mortar to get in forming an edge to improve fixation and stability for the brick.**

**The presence of void will reduce heat transfer which will make it a better insulator. Since the heat transfer coefficient of bricks ranges from 0.61 to 0.74 while of still air it ranges from 0.5 to 5. And that can be increase by doing two layers of wall bricks and filling foam or any type of insulation layer in between.**

**It can also make the bricks lighter and easier to handle and transport, and require lesser raw materials to manufacture.**



**“Engineering bricks have a high compressive strength and a low rate of water absorption which makes them suitable damp proof courses;**

**Stronger and less porous engineering bricks (UK Class A) are usually blue due to the higher firing temperature whilst class B bricks are usually red. Class A bricks have a strength**

**of 125 N/mm<sup>2</sup> (18,100 lb f/sq in) and water absorption of less than 4.5%;**

**Class B bricks have a strength greater than 75 N/mm<sup>2</sup> (10,900 lbf/sq in) and water absorption of less than 7%.**

**Bricks made up to about Ww2 had no holes but had a “frog” to give adhesion to the mortar. My house made of real Nori brick ( used for the foundations of the Empire State in US and Blackpool Tower in UK) with a cavity is a terrace of 8 houses was built all at once and sounds ( like drilling a hole) tr...**

**As you may be aware, London Bricks are probably the worst for weathering as they are made from Bedfordshire Clay which has an oil content which makes them virtually self firing once up to temperature. This leaves them like a sponge which absorbs rainwater which freezes in frosty weather and blasts the face off. Also, they only have one deep frog on one side which some unscrupulous place downwards to save on mortar!**

**My own house is built with Armitage bricks, not quite up to Accrington standard, but come a close second!**

**Bricks with holes in them are made by extrusion, which makes manufacturing faster and more efficient. In Australia bricks were traditionally made by pressing, so they are solid, and quite heavy. To increase mortar adhesion, they have a depression on the top, called a ‘frog’.**

**In Australia, most red bricks are now made by extrusion with holes. It is becoming difficult to obtain second-hand solid bricks.**