**Difference between Autoclaved Aerated Concrete Blocks and Clay Bricks**

Light Weight
Autoclaved aerated concrete blocks volume-weight usually is 400kg/m³~700kg/m³, which is equal of hollow clay bricks’ one third, solid clay bricks’ one fifth, concrete’s one fourth, also lower than usual the volume-weight of lightweight aggregate concrete. So we can greatly reduce the weight of the building and save project cost when using AAC blocks as wall material.

2. Heat insulating ability
AAC blocks contain lots of bubble and micro pore, and with good performance of thermal. Usual thermal conductivity of AAC(400kg/m³~700kg/m³) is 0.09W/(m • K)~0.17W/(m • K), 3 to 4 times of clay bricks, 4 to 8 times of common concrete.

3. Durability
150mm × 150mm × 150mm specimen exposure to the atmosphere, the compressive strength increase 25% after one year, the intensity remained stable after 10 years, most of the strength of aerated concrete block increase a little after natural carbonation, which shows aerated concrete block with good durability.

4. Water permeability
Autoclaved aerated concrete block with a closed independent spherical structure, and thus absorbing the moisture slowly. After test, the use of shower spray to 240mm thick clay brick walls and aerated concrete wall, clay brick wall all soaked after 12h, and 72h later aerated concrete wall water seepage depth of 80mm ~ 100mm. Therefore, the autoclaved aerated concrete block wall for areas where rain a lot.

5. Compressive strength
Aerated Concrete compressive strength 3.5MPa, 07 level for 5.0MPa. Autoclaved aerated concrete block overall strength of each block is generally equivalent to 10 pieces of clay bricks, so the utilization of high strength masonry strength utilization factor is 0.7 to 0.8, while Clay's strength utilization factor is only 0.2 ~ 0.3.
6. Fire resistance
Low thermal conductivity, thermal migration of slow, which can be effective against fire and protect structures from fire effects. The fire temperatures as high as 700 °C, as first level refractory material, an inorganic non-combustible materials, not produce harmful gases in high temperature.

7. Noise Absorption
Autoclaved aerated concrete block with a spherical closed porous structure, which has some absorption properties, the absorption coefficient of 0.2 to 0.3, absorption properties better than ordinary concrete, used for the special requirements of acoustic wall construction body. Autoclaved aerated concrete wall of sound insulation, 100mm thick as 45dB, 180mm thick as 53dB.