AAC

Stands for AUTOCLAVED AERATED CONCRETE.

• Is steam cured through Autoclaves.
• Is an Aerated product having millions of entrapped air bubbles.
• A concrete product, therefore containing cement.
• A lightweight product.
• A thermal product.
• A "Green" product.
• A complete & unique building system used as:
  - External Blocks
  - Internal Partition Blocks
  - Reinforced Panels
  - Reinforced Slabs
  - Decorative elements
• An internationally proven building material with more than 500 plants covering all regions of the globe.

Characteristics & Advantages:

• Superior thermal Insulations: 13 times more insulation than regular blocks
• One third the weight of conventional hollow blocks
• Double the fire rating - 4 hours for a 200mm thickness versus 2 hours for normal hollow blocks.
• Savings in steel, concrete, foundation size, slab size, piling and MEP.
• High Acoustic Performance.
• Faster to work with, and involves fewer workers.
• Can be cut to size and can be easily chiselled for conduit placement.
• Environmentally friendly.

Structural Savings with AAC:

• Piling due to Dead load reduction
• Structural foundations
• Slab Thickness
• Beams & Columns
• Amount of Steel Used (min. 30%)
• Amount of Concrete Used (min. 10%)

Note: The higher the building the higher the structural savings.

Sustainability (in Arabic "Estidama"):

• AAC products have earned the prestigious, internationally recognised ‘Good Environmental Choice’ label.
• AAC products demonstrate a reduced environmental load of at least 30% as compared to the products.
• AAC products provide savings in steel & concrete used in a building.
• AAC uses only 33% of the raw materials for making regular blocks.
• AAC products result in less greenhouse gas emissions.
• AAC products produce less wastage at sites.

Energy Savings Field Data

Conclusion: by using AAC blocks you are saving AED 135.9/m².

Notes:
- Wall with plaster & painting on both sides
- HVAC chilled water system cost is based on AED 6,000/Ton
- Electrical system cost is based on AED 2,500/KW

Notes:
- Energy is calculated based on 20 fils/ton-hr in Abu Dhabi & 50 fils/ton-hr in Dubai & NE.

Table: Description Un-Insulated Wall (Normal Block) Insulated Wall (AAC Block) Difference

Wall 93.6 90.3 -3.3
Impact on A/C Cost 101.5 23.9 -77.6
Impact on Electrical Cost 71.9 16.9 -55
Total Cost Impact 273.4 170.8 -102.6

Notes:
- Construction Cost (AED/m² of wall area)
- Operating Cost (AED/Year/m² of wall area)

Other Advantages with AAC:

• Cleaner site with less wastage
• Less debris to throw
• Less crane usage
• Less cement bags for mortar
• Higher labour productivity
• Can be cut to suit wall curvatures
• Glue mortar allows for more coverage

Spectrum Light Block Factory

About Us

• Spectrum Light Block LLC
• Located in ICAD (Industrial City of Abu Dhabi)
• Produces 1,000 m³ of Autoclaved Aerated Concrete (AAC) material per day
• Production could be expandable to 1,300 m³ per day
• A fully automated German plant utilising the latest AAC technology
• Land size of 45,000 m² with a 30 year lease agreement

Stake Holders

- Alien & Sons Industrial Projects - 35%
- Spectrum Limited - 30%
- Al Qudra Holding - 20%
- Others - 15%

Notes:
- Share Capital of AED 25,000,000 (Twenty Five Million Dirhams)
- State-of-the-art factory spanning over 45,000 square meters
- “Production capacity of up to 1,300 m³ per day”
- “ISO 9001: 2000 certified”
- “Energy Savings Field Data”
- “Construction Cost (AED/m² of wall area)”
- “Operating Cost (AED/Year/m² of wall area)”
- Method of application: