

HOUSING PROJECTS

Soil brick solution for housing

Nico LeGrange of Ikhaya Brick Technologies (IBT) says that almost 85% of sites around the continent can produce sustainable soil quality inter-locking bricks.

The fact that unskilled labour can use the material and construct a house easily and provide a finish a master builder would be proud of is just one of the benefits.

The unique and patented SABS-tested inter-locking i-brick building system allows the i-bricks to be manufactured on site using both unskilled local labour and local materials. The vast amount of research and development has produced a valuable database and a reservoir of more than 2 000 soil analysis sites around the continent.

The i-brick shape and design can easily incorporate steel reinforcing together with electrical and plumbing cabling and pipes within the special design of the partially hollow brick. IBT are also in the testing phases of being able to bind the remaining 15% of soil types with ground breaking Nano-Technology mixtures which are currently being tested. Building is quick and easy to assemble for even the most constructionally challenged. The unskilled work-force is given a two week



training course in manufacturing and building using the inter-locking soil bricks. This allows 100% of the work force to be drawn from the local community.

Cutting down on the amount of cement used to produce a government grant house will challenge other materials in the built environment. "Typically a 42m² government grant house would require 27 bags of cement for top structure if normal bricks and stocks are used but with IBT's soil brick, only five bags of cement are required for top structure. This is a major cost saving and makes financial sense. While the normal cement or clay bricks require mortar, the i-brick system doesn't need mortar, plaster or paint. This reduces construction costs by between 10 to 20%. The

benefit of the i-brick system is a quality finish." The i-brick which is self aligning allows even unskilled labour to lay 1 000 bricks a day. LeGrange is passionate about the patented design brick product, developed over five years with numerous case studies. To create the i-brick, IBT partnered with the world's leading manufacturer of brick and construction machinery, Pan Mixers.

The giant manufacturer quickly recognised the merits of the i-brick building system. Pan Mixers developed a brick-making machine exclusively for IBT's soil brick and produced a machine that could be easily used, maintained, and reliable, for even the most rural areas on the continent.

The i-brick manufacturing machine can produce between 3 000 to 4 000 bricks per day. The average 42m² government grant house uses approximately 2 800 bricks. LeGrange says that one machine can produce enough bricks for 20 government grant houses per month.

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Nico LeGrange and an i-brick house

