

the sure way to make bricks & blocks on a small scale



PPC
CEMENT



Making strong bricks and blocks is easy

To ensure that the bricks/blocks you make are strong, you need to use a power-packed cement like **PPC Surebuild 42,5 N**, because it has extra strength it yields at least 20% more bricks than regular 32,5 general purpose cements and so you will achieve more for less!*

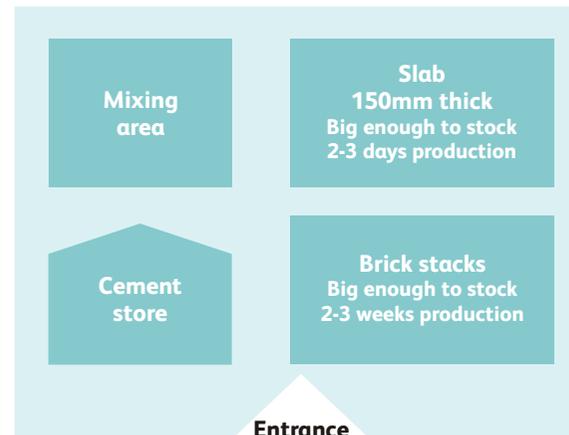


What sort of site do I need?

Select a site that...

- is close to your customers
- is close to your supplier of **PPC Surebuild 42,5 N** and river sand
- is accessible for delivery trucks if necessary
- has a level surface
- is big enough to make and cure the amount of bricks/blocks you want to produce

Typical site layout



*For more details on comparative mixes, see the Affordable Housing brochure.

What equipment do I need?

You will need the following equipment...

- a good manual brick/block-making machine
- a 65 litre builder's wheelbarrow
- a spade
- a sieve (this can be a strong piece of galvanised wire mesh with holes about 5mm square so the tip of your little finger can go through)
- a strong water bucket
- plaster sheets (such as clean dpc sheets)

What materials do I need?

1. PPC Surebuild Cement 42,5 N

It is ideal for small scale brick/block manufacture. **PPC Surebuild 42,5 N** complies with SANS 50197-1. It meets the NHBRC requirements. **PPC Surebuild Cement 42,5 N** with extra strength makes 15% more concrete than regular general purpose cements.

2. Clean river sand



3. Clean water

If you can drink it, it is suitable for brick/block making.



What mix proportions should I use?

Determining what mix to use

- Start by using Mix 2 (see above right)
- After 7 days test for strength (see reverse "How can I test the quality of my product?").
- If greater strength is required, use Mix 1

SUREBUILD



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BRICK STRENGTH	No. OF BAGS PPC SUREBUILD	No. OF FULL WHEELBARROWS OF RIVER SAND
MIX 1	1 Wheelbarrow = 2 bags 	8 Wheelbarrows 
MIX 2	1 Wheelbarrow = 2 bags 	10 Wheelbarrows 

How do I mix brick/block making materials?

1. Sieve out lumps, stones, twigs or foreign objects from the sand.
2. Working with full wheelbarrows, level to the top edges, lay the sand in a long, thin heap on a flat, clean, hard surface such as a metal sheet or a concrete slab.

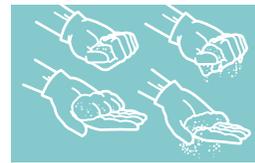


3. Next add **PPC Surebuild Cement 42,5 N** with extra strength on top of the sand in the correct proportion (2 bags **PPC Surebuild 42,5 N** to every 8 or 10 wheelbarrows of sand, depending on the strength of bricks required).



4. Mix **PPC Surebuild Cement 42,5 N** and sand together until uniform in colour.

5. Create a hollow in the centre and slowly add clean water while mixing. The mix is correct when it forms a ball when squeezed in your hand. (If water runs out between your fingers, too much water has been added.)



How do I mould the bricks or blocks?

1. Sweep the slab clean and then wet it.
2. Fill your brick/block-making mould with the brick/block mortar mixture.
3. Push the top handles of the machine down to press the mortar into the mould and compact it well. Good compaction increases the strength of your brick/blocks.
4. Lift the side handles to release the mould.
5. Lift the mould off the bricks/blocks.
6. Do not move the bricks/blocks, but cover them immediately with a dark plastic sheet to keep them damp and to shield them from the sun and wind.

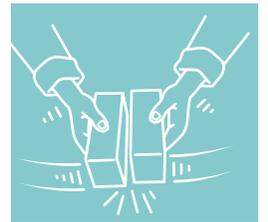


7. Only after 24 hour can the bricks/blocks be moved to the stacking area and be stockpiled.

8. The stockpiled bricks/blocks should be kept covered and damp for another 7 days to cure and gain strength.
9. Uncover the bricks/blocks but keep them stored for a further 7 days to allow for any shrinkage that might take place (if the bricks/blocks are used before they have cured, they may cause the wall to crack!).

How can I test the quality of my product?

1. Keep a record of the number of broken or cracked bricks/blocks in each day's production. A large number is usually a sign of a poor mix e.g. too much water, too little cement or poor compaction.
2. After 7 days of curing you can test the strength of your bricks/blocks after drying them by knocking two together. If they make a "ringing" sound, it shows good strength. If they make a dull "thud", it shows poor strength.



For bricklaying and plastering guide see the PPC Cement 'The sureway to do bricklaying and plastering' instore or downloadable at www.ppc.co.za



Visit our website at: <http://www.ppc.co.za>

For more advice on cement please ask your PPC Cement stockist or call the PPC toll-free help line 0800 023 470 (SA only).

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