CLAIMS

1. A method of producing a sand-like material, the method comprising:

obtaining a clayey soil comprising a first mineral, wherein the first mineral is kaolinite;

granulating the clayey soil to form a plurality of granules;

sintering the plurality of granules to convert the first mineral to a second mineral, wherein the second mineral is metakaolinite; and

cooling the plurality of sintered granules to obtain the sand-like material comprising the second mineral.

2. The method of claim 1, wherein a size of the plurality of granules is in the range of 3mm to 5mm.

3. The method of claim 1 or 2, further comprising filtering the clayey soil to remove debris and particles before granulating.

4. The method of claim 3, wherein the step of filtering screens out debris and particles that are more than 0.6 mm in size.

5. The method of claim 3 or 4, further comprising mixing the clayey soil with water to obtain a homogenous slurry before filtering.

6. The method of any one of claims 1 to 5, further comprising dewatering the clayey soil to reduce a moisture content of the clayey soil before granulating.

7. The method of claim 6, wherein the moisture content of the clayey soil is reduced to the range of 30% to 50% by mass.

8. The method of any one of claims 1 to 7, wherein the step of granulating comprises extruding and cutting the clayey soil.

9. The method of claim 8, wherein the extruded clayey soil has a diameter in the range of 1mm to 3mm.

10. The method of any one of claims 1 to 9, wherein the step of sintering comprises heating the plurality of granules at a temperature in the range 800^{o}C to 900^{o}C.

11. The method of any one of claims 1 to 10, wherein the plurality of granules is sintered in a rotary kiln.

12. The method of any one of claims 1 to 11, further comprising preheating the plurality of granules before sintering.

13. The method of claim 12, wherein the plurality of granules is preheated at 100 ^{o}C or higher.

14. The method of any one of claims 1 to 13, wherein the step of cooling is performed in a heat exchanger to harvest heat from the plurality of sintered granules.

15. The method of any one of claims 1 to 14, wherein the clayey soil comprises marine clay.

16. A sand-like material comprising a plurality of sintered granules, wherein the plurality of sintered granules comprises metakaolinite.

17. The sand-like material of claim 16, wherein a size of the sintered granules is in the range of 3mm to 5mm.

18. The sand-like material of claim 16 or 17, wherein the sand-like material has
a static compressive strength in the range of 10MPa to 20MPa;
a permeability in the range of 1 x 10^{-3} to 1 x 10^{-4} m/s; and/or
a friction angle in the range of 30^{o} to 39^{o}.

19. Use of the sand-like material of any one of claims 16 to 18 in land reclamation.

20. Use of the sand-like material of any one of claims 16 to 18 to produce concrete.