What we claim is:

1. An activator admixture for producing concrete, the activator comprising a pozzolan component, wherein the pozzolan component comprises a first pozzolan portion and at least a second pozzolan portion, wherein the first and second pozzolan portions comprise different median particle sizes or chemical compositions;

   wherein the pozzolan component comprises a chemical composition comprising 20-80% w/w silicon dioxide, and 5-40% w/w aluminium oxide; and

   wherein the activator admixture further comprises a plasticiser present at between about 8% and 40% w/w of the activator admixture.

2. An activator as claimed in claim 1, further comprising a powdered plasticiser component mixed with the pozzolan component.
3. The activator of any of the preceding claims wherein the activator comprises an electrostatic charge.
4. The activator of any of the preceding claims, wherein the pozzolan component comprises a bi-modal, tri-modal or multi-modal particle size distribution.
5. The activator of any of the preceding claims, wherein the first pozzolan portion comprises an intermediate median particle size in a range of 0.5-1.5μm and the second pozzolan portion comprises a coarse median particle size in a range of 10-80μm.
6. The activator of any of the preceding claims wherein the specific surface area of the activator comprises between 350-1000m^2/kg.
7. The activator of any of the preceding claims wherein the particle size distribution of the activator is defined by:
   a. 15-55% of particles are less than 15 μm;
   b. 50-80% of particles are less than 40 μm; and
   c. 70-100% of particles are less than 90 μm.
8. The activator of any of the preceding claims wherein the ratio between the pozzolan component and the plasticiser comprises from about 11:1 pozzolan:plasticiser to about 1.5:1 pozzolan:plasticiser, and/or wherein the plasticiser comprises a Dv50 of from 50-500μm or 100-200μm.
9. A method of producing an activator admixture composition comprising the steps of:
   a. obtaining a first pozzolan portion with a first chemical composition and a first median particle size and a second pozzolan portion with a second chemical composition and second median particle size;

b. combining the first pozzolan portion with the second pozzolan portion to form a pozzolan component;
c. mixing the pozzolan component with a plasticiser to produce an activator admixture composition,

wherein the pozzolan component comprises a chemical composition comprising 20-80% w/w silicon dioxide, and 5-40% aluminium oxide,

wherein the plasticiser comprises 8-40% w/w of the activator admixture composition,

wherein the first and second pozzolan portions comprise different median particle sizes.

10. A method as claimed in claim 9 wherein the activator comprises an electrostatic charge.
11. A method as claimed in claim 10 wherein the electrostatic charge is applied to the activator by way of external electrical fields generated by electrodes, electrostatic spraying techniques, triboelectric charging in a fluidised bed, corona discharge methods, electrostatic fluidisation, and mechanical mixing-induced friction.
12. A method as claimed in any of claims 9 to 11 wherein the activator comprises a particle size distribution defined by:
    a. 15-55% of particles are less than 15 μm;
    b. 50-80% of particles are less than 40 μm; and
    c. 70-100% of particles are less than 90 μm.
13. A method according to claim 12, further comprising the steps of:
    a. identifying a chemical composition of a first pozzolan as the first pozzolan portion;
    b. identifying a chemical composition of a second pozzolan as the second pozzolan portion; and
    c. calculating an amount of the first pozzolan and an amount of the second pozzolan required to achieve the chemical composition of the pozzolan component.
14. A concrete composition comprising:
    a. an activator admixture as claimed in any of claims 1 to 8;
    b. cementitious material; and
    c. aggregate.
15. The concrete composition according to claim 14 wherein the cementitious material comprises cement and pozzolanic filler, and wherein the filler comprises pozzolanic SCMs and is present in an amount of 10 to 50% w/w of cementitious material.

16. The concrete composition according to any of claims 14 to 15 wherein the cementitious material comprises cement at a quantity selected from the group consisting of less than 50%, less than 60%, less than 70%, less than 80% or less than 90% cement.
17. The concrete composition according to any of claims 14 to 16 wherein the activator is present in a quantity of 1-4% w/w of the cementitious material.
18. The concrete composition according to any of claims 14 to 17 wherein the cementitious material is present at a reduced quantity in the composition compared to a reference quantity of cementitious material in a reference concrete composition, wherein the reduced quantity is defined by a reference quantity reduced by a reduction factor, and wherein the reference concrete composition does not include the activator; wherein the reduction factor is 10% to 50%.
19. A method of producing a concrete composition comprising combining:
    a. an activator admixture of any one of claims 1 to 8;
    b. aggregate;
    c. cement; and
    d. water;

    wherein the concrete composition comprises activator admixture at between 1-4% by weight of cement.

20. A method as claimed in claim 19 wherein the activator comprising 20-80% w/w silicon dioxide, 5-40% w/w aluminium oxide, a particle size distribution defined by:
    a. 15-55% of particles are less than 15 μm;
    b. 50-80% of particles are less than 40 μm; and
    c. 70-100% of particles are less than 90 μm;

    and wherein the concrete composition develops a compressive strength of at least 25MPa at 28 days, and wherein the composition comprises at least 10% by weight of natural or synthetic pozzolan SCM as a substitute for cement.