Claims

1. A cold-formed pellet comprising a particulate iron ore, between 0.05 and 1.0 % by weight, typically less than 0.3% by weight of an organic binder comprising polyvinyl alcohol, the pellet additionally comprising up to 20 wt% of carbonaceous material.

2. A pellet according to claim 1, wherein the organic binder additionally comprises a polymeric binder selected from polyacrylamide resin, resole resin, Novolac resin, polyvinyl alcohol and a polysaccharide.

3. A pellet according to claim 1 or claim 2, wherein the particulate iron ore is magnetic.

4. A pellet according to claims 1 to 3, comprising a waterproofing agent.

5. A pellet according to claims 1 to 4, wherein the particulate iron ore is capable of passing through a 100μm mesh prior to pelleting.

6. A method of producing steel comprising heating a pellet according to claims 1 to 5 in an electric arc furnace.

7. A method according to claim 6, wherein the pellet is heated under a reducing atmosphere.

8. A method according to claim 7, comprising heating under a reducing atmosphere comprising hydrogen, shale gas or natural gas.

9. A method according to claims 7 to 9, comprising mixing with scrap metal.

10. A method according to claim 9, wherein up to 50% by weight of the pellet plus scrap metal is formed of the iron ore pellets.

11. A method of producing a pellet according to claims 1 to 5, comprising mixing a particulate iron ore with up to 0.3% by weight of the binder.

12. A method of producing steel, comprising providing a pellet according to claims 1 to 5, optionally produced by a method according to claim 11, transporting the pellet to an electric arc furnace and producing steel by a method according to claims 6 to 11.