

Claims

1. A pellet comprising a particulate iron ore and between 0.05 and 1.0 % by weight, typically less than 0.3% by weight of an organic binder.
2. A pellet according to claim 1, wherein the organic binder is a polymeric organic binder.
3. A pellet according to claims 1 or 2, wherein the organic binder is selected from polyacrylamide resin, resole resin, Novolac resin, polyvinyl alcohol and a polysaccharide.
4. A pellet according to any preceding claim, wherein the particulate iron ore is magnetic.
5. A pellet according to claims 1 to 4, comprising a waterproofing agent.
6. A pellet according to claims 1 to 5, additionally comprising up to 20% by weight of carbonaceous material.
7. A pellet according to claims 1 to 6, wherein the particulate iron ore is capable of passing through a 100µm mesh prior to pelleting.
8. A method of producing steel comprising heating a pellet according to claims 1 to 7 in an electric arc furnace.
9. A method according to claim 8, wherein the pellet is heated under a reducing atmosphere.
10. A method according to claim 9, comprising heating under a reducing atmosphere comprising hydrogen, shale gas or natural gas.
11. A method according to claims 8 to 10, comprising mixing with scrap metal.
12. A method according to claim 11, wherein up to 50% by weight of the pellet plus scrap metal is formed of the iron ore pellets.
13. A method of producing a pellet according to claims 1 to 7, comprising mixing a particulate iron ore with up to 0.3% by weight of the binder.

14. A method of producing steel, comprising providing a pellet according to claims 1 to 7, optionally produced by a method according to claim 13, transporting the pellet to an electric arc furnace and producing steel by a method according to claims 8 to 13.