Claims:

1. A food packaging material comprising a paper, paperboard or cardboard substrate and a barrier coating on the substrate, wherein the barrier coating comprises the combination of starch, seaweed extract and paper fibers.

2. The food packaging material of claim 1, wherein the seaweed extract comprises alginate, carageenan, agar, or a mixture thereof.

3. The food packaging material of claim 1, wherein the food packaging material is biodegradable.

4. The food packaging material of claim 3, wherein the food packaging material is compostable.

5. The food packaging material of claim 1, wherein the barrier coating includes polylactic acid.

6. The food packaging material of claim 1, wherein the starch of the barrier coating is crosslinked by means of a polycarboxylic acid.

7. The food packaging material of claim 6, wherein the polycarboxylic acid is one or more of citric acid, malic acid, tartaric acid and lactic acid.

8. The food packaging material of claim 1, wherein the barrier coating contains a sufficient amount of paper fibers so that the barrier coating is flexible and a sufficient amount of seaweed extract to exhibit a low oxygen permeability.

9. The food packaging material of claim 8, wherein the barrier coating water-vapor impermeable.

10. The food packaging material of claim 1, wherein the barrier coating also includes shellac or analogue.

11. A process for making a food packaging material comprising a paper, paperboard or cardboard substrate and a barrier coating on the substrate, the process comprising applying an aqueous coating composition to the substrate and thereafter allowing the coated substrate to dry thereby forming the barrier coating, wherein the coating composition comprises the combination of starch, seaweed extract and paper fibers.

12. The process of claim 11, wherein the seaweed extract comprises alginate, carageenan, agar, or a mixture thereof.

13. The process of claim 11, wherein the coating composition includes polylactic acid.

14. The process of claim 11, wherein the coating composition contains a polycarboxylic acid capable of crosslinking the starch in the coating composition.

15. The process of claim 14, wherein the polycarboxylic acid is one or more of citric acid, malic acid, tartaric acid and lactic acid.

16. The process of claim 11, wherein the coating composition contains a sufficient amount of paper fibers so that the barrier coating is flexible and a sufficient amount of seaweed extract so that the barrier coating exhibits a low oxygen permeability.

17. The process of claim 11, wherein the coating composition contains about 4 to 30 wt.% starch.

18. The process of claim 11, wherein the starch used to form the barrier coating has a glass transition temperature, T_g, and further wherein the barrier layer is formed at a temperature which is below this T_g.

19. A packaged food product comprising a package and a food item inside the package, wherein the package is formed from a packaging material comprising a paper, paperboard or cardboard substrate and a barrier coating on the substrate, wherein the barrier coating comprises the combination of starch, seaweed extract and paper fibers.

Claims:

1. food packaging material comprising a paper, paperboard or cardboard substrate and a barrier coating on the substrate, wherein the barrier coating is made by coating the substrate with an aqueous coating composition containing the ingredients of the barrier coating, wherein the barrier coating comprises at least 20 wt.% starch, at least 20 wt.% seaweed extract and at least 20 wt.% paper fibers, these percents being based on the combined weight of all ingredients forming the barrier coating but excluding any liquid carrier used to apply the coating composition.

2. The food packaging material of claim 1, wherein the seaweed extract comprises alginate, carageenan, agar, or a mixture thereof.

3. The food packaging material of claim 1, wherein the food packaging material is biodegradable.

4. The food packaging material of claim 3, wherein the food packaging material is compostable.

5. The food packaging material of claim 1, wherein the barrier coating includes polylactic acid.

6. The food packaging material of claim 1, wherein the starch of the barrier coating is crosslinked by means of a polycarboxylic acid.

7. The food packaging material of claim 6, wherein the polycarboxylic acid is one or more of citric acid, malic acid, tartaric acid and lactic acid.

8. The food packaging material of claim 1, wherein the barrier coating contains a sufficient amount of paper fibers so that the barrier coating is flexible and a sufficient amount of seaweed extract to exhibit a low oxygen permeability.

9. The food packaging material of claim 8, wherein the barrier coating is water-vapor impermeable.

10. The food packaging material of claim 1, wherein the barrier coating also includes shellac or analogue.

11. A packaged food product comprising a package and a food item inside the package, wherein the package is formed from the food packaging material of claim 1.

12. The food packaging material of claim 1, wherein the barrier coating optionally contains an additional film forming ingredient other than seaweed extract and starch, and further wherein the maximum amount of this optional additional film forming ingredient is 25 wt.%, based on the combined weight of all ingredients forming the barrier coating but excluding any liquid carrier used to apply the coating composition.

13. The food packaging material of claim 12, wherein the maximum amount of the optional additional film forming ingredient in the barrier coating is 10 wt.%.

14. The food packaging material of claim 1, wherein the film forming ingredients in the barrier coating consist of seaweed extract, starch and an additional, optional film forming agent other than seaweed extract and starch selected from the group consisting of lipids, paraffin wax, carnauba wax, beeswax, candelila wax, polyethylene wax, fatty acids, fatty acid monoglycerides, fatty acid di-glycerides, wood resin, coumarone-indene, shellac, corn zein, wheat gluten, soy protein, peanut protein, keratin, collagen, gelatin, milk protein, whey protein, polylactides and mixtures thereof.

15. The food packaging material of claim 1, wherein the barrier coating, comprises at least 40 wt.% starch.

16. The food packaging material of claim 1, wherein the barrier coating, comprises at least 40 wt.% seaweed extract.

17. The food packaging material of claim 1, wherein the barrier coating, comprises at least 40 wt.% paper fibers.

18. The food packaging material of claim 1, wherein the barrier coating, comprises at least 30 wt.% starch, at least 30 wt.% seaweed extract and at least 30 wt.% paper fibers.