What is claimed:

1. A process, comprising:

Providing a multilayered article comprising a laser-markable layer comprised of at least one organic polymer and at least one light-sensitive pigment, and at least one release agent associated with the laser-markable layer, wherein the laser-markable layer comprises a material selected from the group consisting of nonwoven materials, woven materials, cellulosic materials, films and combinations of two or more of the foregoing; and

Laser-marking the laser-markable layer by directing laser radiation into the multilayered article through the at least one release agent to induce an interaction between the light-sensitive pigment and the organic polymer to form a visually perceptible marking in the article, the at least one release agent being transparent to the laser radiation.

2. The process according to claim 1 wherein providing the multilayered article further comprises mixing the organic polymer and the laser-sensitive pigment to form a blend, and extruding the blend to provide the laser-markable layer, the laser-markable layer having a first major surface and a second major surface; and simultaneously co-extruding the at least one release agent over the first major surface of the laser-markable layer.

3. The process according to claim 1 wherein providing the multilayered article further comprises first forming the laser-markable layer having first and second major surfaces, and thereafter applying the release agent to one or both of the first and second major surfaces.

4. The process according to claim 1 wherein providing the multilayered article further comprises forming the laser-markable layer having first and second major surfaces, and applying an adhesive layer to one or both of the first and second major surfaces so that the adhesive layer is between the release agent and the laser-markable layer.

5. The process according to claim 1 wherein providing the multilayered article comprises extruding a multilayered sheet having a plurality of extruded layers to comprise at least (i) a first extruded layer comprising a polymer that is essentially transparent to the laser radiation, the first extruded layer forming a first major surface of the multilayered article; (ii) the laser-markable layer; and (iii) a third extruded layer providing a second major surface of the material, wherein the laser-markable layer is disposed between the first and third extruded layers.

6. The process according to claim 5 wherein the at least one release agent is applied to the first major surface of the multilayered article.

7. The process according to claim 6 wherein the at least one release agent comprises the first extruded layer.

8. The process according to claim 6 wherein the at least one release agent comprises a first release agent and a second release agent, the first release agent comprising the first extruded layer and the second release agent comprising the third extruded layer of the multilayered article, wherein the third extruded layer comprises a polymer that is transparent to the laser radiation.

9. The process according to claim 8 wherein the first extruded layer and the third extruded layer comprise polyethylene.

10. The process according to claim 5 wherein the at least one release agent comprises a first release agent applied to the first major surface of the multilayered article and a second release agent applied to the second major surface of the multilayered article; and wherein the third extruded layer comprises a polymer that is transparent to the laser radiation.

11. The process according to claim 10 wherein the first extruded layer comprises low density polyethylene, the organic polymer of the laser-markable layer comprises high density polyethylene, and the third extruded layer comprises medium density

polyethylene; and wherein the at least one light-sensitive pigment comprises titanium dioxide.

12. The process according to claim 10 wherein the organic polymer of the laser-markable layer is selected from the group consisting of polyethylene terephthalate, polyolefin, thermoplastic elastomeric olefin and combinations thereof; and wherein the at least one light-sensitive pigment comprises titanium dioxide.

13. The process according to claim 10, further comprising:

Applying a pressure sensitive adhesive over the second release agent; and

Rolling the multilayered article into a rolled configuration so that the pressure sensitive adhesive becomes releasably adhered to the first release agent, wherein the pressure sensitive adhesive is more firmly adhered to the second release agent than to the first release agent.

14. The process according to claim 1 wherein the laser radiation comprises electromagnetic radiation comprising a wavelength of about 355 nm.

15. The process according to claim 1 wherein the laser radiation comprises electromagnetic radiation comprising a wavelength of about 532 nm.

16. The process according to claim 1 wherein the visually perceptible marking is an indicia of source and wherein the multilayered article is useful as a release liner.

17. An article, comprising:

A laser-markable layer comprising a first major surface and a second major surface comprising at least one organic polymer and at least one light-sensitive pigment, wherein the laser-markable layer comprises a material selected from the group consisting of nonwoven materials, woven materials, cellulosic materials, films and combinations of two or more of the foregoing;

A first release agent associated with the first major surface of the laser-markable layer; and

A marking in the laser-markable layer visible through the first release agent, the marking resulting from a laser-induced interaction between the at least one light-sensitive pigment and the organic polymer.

18. The article according to claim 17 wherein the article is a release liner.

19. The article according to claim 17 wherein the at least one polymer is selected from the group consisting of polyethylene terephthalate, polyolefin, thermoplastic elastomeric olefin and combinations thereof; and the light-sensitive pigment comprises titanium dioxide.

20. The article according to claim 17 wherein the light sensitive pigment is present at a concentration of less than about 10% by weight based on the weight of the laser-markable layer.

21. The article according to claim 17 wherein the substrate is a multilayered sheet comprising a plurality of layers having at least (i) a first extruded layer comprising a polymer that is essentially transparent to the laser radiation, the first extruded layer forming a first major surface of the multilayered article; (ii) the laser-markable layer; and (iii) a third extruded layer providing a second major surface of the material, wherein the laser-markable layer is disposed between the first and third extruded layers.

22. The article according to claim 21 wherein the first extruded layer comprises low density polyethylene; the middle extruded layer comprises high density polyethylene; the second extruded layer comprises medium density polyethylene; and the at least one light-sensitive pigment comprises titanium dioxide.

23. The article according to claim 22 wherein the first release agent is disposed on the first major surface of the multilayered article, and a second release agent is disposed on the second major surface of the multilayered article.

24. The article according to claim 23 further comprising a pressure sensitive adhesive disposed on the second release agent.

25. The article according to claim 24 formed in a roll so that the pressure sensitive adhesive is releasably adhered to both the first release agent and the second release agent, the first and second release agents selected so as to provide differential release properties with respect to the pressure sensitive adhesive.

26. The article according to claim 17 wherein the at least one release agent comprises a material selected from the group consisting of polyolefin, silicones, fluorosilicons, perfluoroethers, fluorocarbons, polymers with long alkyl side chains, and combinations of two or more of the foregoing.

27. The article according to claim 17 wherein the substrate is a multilayered sheet comprising a plurality of layers having at least (i) a first layer comprising a polymer that is essentially transparent to the laser radiation, the first layer forming a first major surface of the multilayered article; (ii) the laser-markable layer; and (iii) a third layer providing a second major surface of the material, wherein the laser-markable layer is disposed between the first and third layers.

28. The article according to claim 27 wherein the first layer is a polyolefin release agent and the article further comprises an adhesive disposed between the first layer and the laser-markable layer.

29. The article according to claim 28 wherein the polyolefin release agent is polyethylene.

30. The article according to claim 26 wherein the first layer is a first polyolefin release agent and the second layer is a second polyolefin release agent.

CLAIMS

1. A process, comprising:

providing a release liner, the release liner comprising an opaque laser-markable layer comprising at least one organic polymer and at least one light sensitive pigment, and at least one release agent, the at least one release agent being transparent to a laser radiation; and

laser-marking the opaque laser-markable layer by directing the laser radiation into the release liner through the at least one release agent to induce an interaction between the lightsensitive pigment and the organic polymer to form a visually perceptible marking in the release liner, wherein the release agent is not functionally damaged by the laser radiation.

2. The process according to claim 1 wherein providing the release liner further comprises mixing the organic polymer and the lasersensitive pigment to form a blend, and extruding the blend to provide the opaque lasermarkable layer, the laser-markable layer comprising a first major surface and a second major surface; and simultaneously co-extruding the at least one release agent over the first major surface of the laser-markable layer.

3. The process according to claim 1 wherein providing the release liner further comprises first forming the opaque laser-markable layer, wherein the opaque laser-markable layer has a first major surface and a second major surface, and thereafter applying the at least one release agent to one or both of the first and second major surfaces.

4. The process according to claim 1 wherein providing the release liner further comprises forming the opaque laser-markable layer, wherein the laser-markable layer has a first major surface and a second major surface, and applying an adhesive layer to one or both of the first and second major surfaces so that the adhesive layer is between the at least one release agent and the lasermarkable layer.

5. The process according to claim 1 wherein the visually perceptible marking is an indicia of source.

6. An article, comprising:

an opaque laser-markable release liner comprising at least one organic polymer and at least one light-sensitive pigment; the opaque laser-markable release liner comprising a first major surface;

a first release agent disposed on the first major surface of the opaque laser-markable release liner; the at least one release agent being transparent to laser radiation, and

a marking in the opaque laser-markable release liner visible through the first release agent, the marking resulting from a laser-induced interaction between the at least one lightsensitive pigment and the organic polymer.

7. The article according to claim 6 wherein the at least one polymer is selected from the group consisting of polyethylene terephthalate, polyolefin, thermoplastic elastomeric olefin and combinations thereof; and the light-sensitive pigment comprises titanium dioxide.

8. The article according to claim 6 wherein the opaque laser-markable release liner comprises a material selected from the group consisting of nonwoven materials, woven materials, cellulosic materials, films and combinations of two or more of the foregoing.

9. The article according to claim 6 wherein the light sensitive pigment is present at a concentration of less than about 10% by weight based on the weight of the opaque laser-markable release liner.

10. The article according to claim 6 wherein the opaque laser-markable release liner comprises (i) a first extruded layer comprising a polymer that is essentially transparent to laser radiation, wherein the first major surface is disposed on the first extruded layer; (ii) an opaque laser-markable layer; and (iii) a third extruded layer, the third extruded layercomprising a second major surface of the laser-markable release liner, wherein the opaque laser-markable layer is disposed between the first and third extruded layers.

11. The article according to claim 10 wherein the first extruded layer comprises low density polyethylene; the opaque laser-markable layer comprises high density polyethylene; the third extruded layer comprises medium density polyethylene; and the at

least one light-sensitive pigment comprises titanium dioxide.

12. The article according to claim 11 wherein a second release agent is disposed on the second major surface.

13. The article according to claim 12 further comprising a pressure sensitive adhesive disposed on the second release agent.

14. A roll comprising the article according to claim 13, wherein the pressure sensitive adhesive is releasably adhered to both the first release agent and the second release agent, the first and second release agents selected so as to provide differential release properties with respect to the pressure sensitive adhesive.

15. The article according to claim 6 wherein the at least one release agent comprises a material selected from the group consisting of polyolefin, silicones, fluorosilicons, perfluoroethers, fluorocarbons, polymers with long alkyl side chains, and combinations of two or more of the foregoing.

16. A laser-markable release liner comprising (i) a first layer comprising a polymer that is essentially transparent to laser radiation, the first layer forming a first major surface of the laser-markable release liner; (ii) an opaque laser-markable layer; and (iii) a third layer providing a second major surface of the laser-markable release liner, wherein the opaque laser-markable layer is disposed between the first and third layers.

17. The article according to claim 16 wherein the first layer comprises a polyolefin release agent and the article further comprises an adhesive disposed between the first layer and the opaque laser-markable layer.

18. The article according to claim 17 wherein the polyolefin release agent is polyethylene.

19. The article according to claim 16 wherein the first layer comprises a first polyolefin release agent and the third layer comprises a second polyolefin release agent.