CLAIMS

1. A multilayer absorbent core, the core comprising:

a first, bodyside nonwoven;

a second nonwoven;

a first absorbent material layer positioned between the first and second nonwovens, embedded within the first nonwoven, embedded within the second nonwoven, or combinations thereof;

a third nonwoven;

a second absorbent material layer positioned between the second and third nonwovens, embedded within the second nonwoven, embedded within the third nonwoven, or combinations thereof; and

wherein the first, second and third nonwovens have a gradient basis weight such that the first and second nonwovens have a higher basis weight than a basis weight of the third nonwoven, and wherein the first and second absorbent material layers have a gradient basis weight, such that the second absorbent material layer has a higher basis weight than a basis weight of the first absorbent material layer.

2. The core of claim 1, wherein at least one section of the second nonwoven comprises bulkified nonwoven.

3. The core of claim 2, wherein an entirety the second nonwoven comprises bulkified nonwoven.

4. The core of claim 2, wherein the second nonwoven comprises one or more sections of bulkified nonwoven and one or more sections of non-bulkified nonwoven, wherein the one or more sections of non-bulkified nonwoven have a high bulk density and a lower void volume than the one or more sections of bulkified nonwoven.

5. The core of claim 4, wherein the absorbent material is positioned on or embedded within the one or more sections of bulkified nonwoven, the one or more sections of non-bulkified nonwoven, or combinations thereof.

6. The core of claim 4, wherein each of the sections of bulkified nonwoven and non-bulkified nonwoven extend along a longitudinal centerline of the absorbent core.

7. The core of claim 4, further comprising one or more absorbent material-free sections coincident with the one or more sections of bulkified nonwoven and one or more absorbent material-containing sections coincident with the one or more sections of non-bulkified nonwoven.

8. The core of claim 4, further comprising one or more absorbent material-free sections coincident with the one or more sections of non-bulkified nonwoven and one or more absorbent material-containing sections coincident with the one or more sections of bulkified nonwoven.

9. The core of claim 8, wherein the absorbent material-free sections are fluid channels.

10. The core of claim 1, wherein at least some of the absorbent material is embedded within the second nonwoven layer.

11. The core of claim 1, further comprising a fourth nonwoven coupled with the third nonwoven.

12. The core of claim 11, wherein the fourth nonwoven is a spunbond nonwoven layer, a tissue, or an aperture nonwoven.

13. The core of claim 1, the third nonwoven comprises a layer of bicomponent fibers.

14. The core of claim 1, wherein the first absorbent material layer includes absorbent material-containing lanes and absorbent material-free lanes; and

wherein embossing lines bind the first nonwoven with the second nonwoven, wherein the embossing lines are coincident with the absorbent material-free lanes, such that the first nonwoven is embossed to the second nonwoven at locations corresponding to the absorbent material-free lanes.

15. The core of claim 1, wherein the first, bodyside nonwoven and the second nonwoven comprise air-through nonwovens, and wherein the third nonwoven comprises an SMS nonwoven.

16. The core of claim 1, further comprising:

a fourth nonwoven; and

a third absorbent material layer positioned between the third and fourth nonwovens, embedded within the third nonwoven, embedded within the fourth nonwoven, or combinations thereof.

17. The core of claim 15, further comprising:

a fifth nonwoven; and

a fourth absorbent material layer positioned between the fourth and fifth nonwovens, embedded within the fourth nonwoven, embedded within the fifth nonwoven, or combinations thereof.

18. The core of claim 1, wherein the first and second absorbent material layers comprise absorbent material-free lanes.

19. The core of claim 18, wherein the position of the absorbent material-free lanes in the first and second absorbent material layers are aligned in the direction from the bodyside to the opposing, backside of the core.

20. The core of claim 18, wherein the position of the absorbent material-free lanes in the first and second absorbent material layers are staggered in the direction from the bodyside to the opposing, backside of the core.

21. The core of claim 1, wherein the first nonwoven has a narrower width than a width of the second and third nonwovens, and wherein the first absorbent material layer is has a narrower width than a width of the second absorbent material layer.

22. The core of claim 1 wherein the first, second and third nonwovens have a gradient thickness such that the first and second nonwovens are thicker than the third nonwoven, and wherein the first and second absorbent material layers have a gradient thickness such that the second absorbent material layer is thicker than the first absorbent material layer.

23. The core of claim 1, wherein the first absorbent material layer comprises absorbent material-containing lanes and absorbent material-free lanes.

24. The core of claim 23, wherein the second absorbent material layer comprises absorbent material-containing lanes and absorbent material-free lanes.

25. The core of claim 24, wherein the absorbent material-free lanes of the first absorbent material layer extend in the MD, and wherein the absorbent material-free lanes of the second absorbent material layer extend in the CD.

26. The core of claim 1, further comprising a loose fiber layer comprising loose fibers positioned between the first and second nonwovens.

27. The core of claim 26, wherein SAP is mixed in the loose fiber.

28. The core of claim 26, wherein the loose fibers are oriented to generally extend in a single direction.

29. The core of claim 26, wherein the first absorbent material layer comprise SAP-containing lanes and SAP-free lanes, and wherein the loose fibers are within the SAP-free lanes.

30. The core of claim 1, wherein at least one of the nonwovens comprises bulkified bulky nonwoven.

31. The core of claim 30, wherein the second nonwoven is a bulkified bulky nonwoven.

32. The core of claim 31, wherein the second nonwoven is sectionally bulkified, including bulkified lanes and non-bulkified lanes.

33. The core of claim 32, wherein the first absorbent material layer comprises absorbent material-containing lanes and absorbent material-free lanes.

34. The core of claim 33, wherein the absorbent material-containing lanes are coincident with the bulkified lanes, and the absorbent material-free lanes are coincident with the non-bulkified lanes.

35. The core of claim 1, wherein the first, second and third nonwovens have a gradient capillarity such that the first and second nonwovens have a lower capillarity than a capillarity of the third nonwoven.

36. The core of claim 35, wherein the first nonwoven has a lower capillarity than a capillarity of the second nonwoven.

37. The core of claim 1, wherein the first and second absorbent material layers have gradient properties such that the first absorbent material layer has a higher permeability than the second absorbent material layer, a slower absorbency rate than the second absorbent material layer, and a lower absorbent capacity than the second absorbent material layer.

38. The core of claim 1, wherein the first, second, and third nonwovens exhibit a gradient void volume such that the first and second nonwovens have a higher void volume than the third nonwoven.

39. The core of claim 1, wherein the first, second, and third nonwovens each have end regions having a first capillarity and central regions having a second capillarity, wherein the first capillarity is greater than the second capillarity.

40. The core of claim 1, wherein at least one of the first, second, and third nonwovens comprise slits.

41. The core of claim 40, wherein the multilayer absorbent core includes SAP-containing lanes and SAP-free lanes.

42. The core of claim 41, wherein the slits are aligned with the SAP-containing lanes.

43. The core of claim 41, wherein the slits are aligned with the SAP-free lanes.