CLAIMS:

1. A method of making a polymeric component, comprising:

extruding one or more strands of a polymer;

halting curing of the one or more strands;

forming a mat with the extruded one or more strands;

bonding the one or more strands to one another at points of contact therebetween; and

curing the one or more strands.

2. The method of making a polymeric component of claim 1, wherein the curing includes cross-linking.

3. The method of making a polymeric component of claim 1, wherein the curing includes heating of the one or more strands.

4. The method of making a polymeric component of claim 1, wherein the extruding is through a spinneret.

5. The method of making a polymeric component of claim 1, wherein the halting is by cooling the one or more strands.

6. The method of making a polymeric component of claim 1, wherein the extruding is into a form.

7. The method of making a polymeric component of claim 6, further comprising:

extruding the one or more strands of a polymer around at least one meltable member;

melting the at least one meltable member;

draining the melted at least one meltable member; and

leaving a void in the mat.

8. The method of making a polymeric component of claim 7, wherein the at least one meltable member is made of wax.

9. The method of making a polymeric component of claim 7, wherein the void provides a flow channel.

10. The method of making a polymeric component of claim 7, wherein the void is an attachment hard-point.

11. The method of making a polymeric component of claim 1, further comprising heating the mat and compacting the mat.

12. The method of making a polymeric component of claim 11, further comprising bonding strands to one another at additional points of contact.

13. The method of making a polymeric component of claim 12, further comprising cross-linking the bonded strands.

14. The method of making a polymeric component of claim 12, further comprising:

heating the mat;

compacting the mat further to a reduced volume;

cooling the mat; and

hardening the mat.

15. The method of making a polymeric component of claim 14, wherein the compacted and cooled mat is an expandable screen.

16. The method of making a polymeric component of claim 14, further comprising controlling parameters of the polymeric component

17. The method of making a polymeric component of claim 16, wherein the parameters are selected from the group consisting of filtration characteristics, density, permeability and shape memory.

18. A polymeric component comprising a compacted mat structure having a plurality of strands of extruded polymeric material bonded at points of contact between the plurality of strands having halted curing prior to fully curing and subsequently being fully cured.

19. The polymeric component of claim 18, wherein the compacted mat structure has been heated compacted again and cooled such that a smaller volume is maintainable until subsequent exposure to an increased temperature.

20. The polymeric component of claim 18, wherein the compacted and cooled mat structure has at least one void.

21. The polymeric component of claim 20, wherein the at least one void is at least one of a flow channel and an attachment hard-point.

22. The polymeric component of claim 18, wherein the extruded polymeric material is a shape memory material.

23. The polymeric component of claim 18, wherein the extruded polymeric material is a thermoplastic.

24. The polymeric component of claim 18, wherein the compacted and cooled mat structure is an expandable screen.

25. The polymeric component of claim 18, wherein the extruded polymeric material is fully cross-linked at the points of contact.

CLAIMS

The invention claimed is:

1. A method of making a polymeric component, comprising:

extruding one or more strands of a polymer around at least one meltable member;

halting curing of the one or more strands;

forming a mat with the extruded one or more strands around at least one meltable member;

bonding the one or more strands to one another at points of contact therebetween;

curing the one or more strands;

melting the at least one meltable member; and

draining the melted at least one meltable member to leave at least one void in the mat.

2. The method of making a polymeric component of claim 1, wherein the curing includes heating of the one or more strands.

3. The method of making a polymeric component of claim 1, wherein the extruding is through a spinneret.

4. The method of making a polymeric component of claim 1, wherein the halting is by cooling the one or more strands.

5. The method of making a polymeric component of claim 1, wherein the extruding is into a form.

6. The method of making a polymeric component of claim 1, wherein the curing includes cross-linking.

7. The method of making a polymeric component of claim 1, wherein the at least one meltable member is made of wax.

8. The method of making a polymeric component of claim 1, wherein the void provides a flow channel.

9. The method of making a polymeric component of claim 1, wherein the void is an attachment hard-point.

10. The method of making a polymeric component of claim 1, further comprising bonding strands to one another at additional points of contact.

11. The method of making a polymeric component of claim 10, further comprising cross-linking the bonded strands.

12. The method of making a polymeric component of claim 1, wherein the compacted and cooled mat is an expandable screen.

13. The method of making a polymeric component of claim 1, further comprising controlling parameters of the polymeric component

14. The method of making a polymeric component of claim 13, wherein the parameters are selected from the group consisting of filtration characteristics, density, permeability and shape memory.

15. The method of making a polymeric component of claim 1, further comprising:

heating the mat;

compacting the mat into a reduced volume;

cooling the mat; and

hardening the mat.

16. The method of making a polymeric component of claim 15, wherein the compacted mat is an expandable screen.