

Claims:

1. A method of shaping an elastic or viscoelastic material having a plurality of interstices, the method including the steps of:
 - i. providing an elastic or viscoelastic material having a plurality of interstices;
 - ii. contacting the material with an additive so that at least a portion of the additive is incorporated within at least a portion of the plurality of interstices of the material;
 - iii. subjecting the material to conditions so that at least a portion of the incorporated additive solidifies, hardens, and/or stiffens;
 - iv. shaping the material incorporating the solid, hard, and/or stiff additive so as to form a shaped material incorporating the additive; and
 - v. removing at least a portion of the incorporated additive from the shaped material incorporating the additive,

wherein the additive solidifies, hardens, and/or stiffens at a temperature of greater than 0 °C.
2. The method of claim 1 wherein the plurality of interstices is a network of voids.
3. The method of claim 1 wherein the elastic or viscoelastic material is selected from: foams and/or sponges, felts, lattices, scaffolds, coiled materials, meshes, and/or webs.
4. The method of claim 1 wherein the elastic or viscoelastic material is a foam.
5. The method of any one of claims 1 to 4 wherein the additive is selected from: a wax or wax-like compounds and mixtures thereof; a crystalline solid/supersaturated liquid; a liquid crystallising compound; a non-Newtonian compound that solidifies; granules/powders/other solids which can flow into the elastic or viscoelastic material; liquids and/or solids that can be hardened or could be arranged and oriented to be stiffer by other means.
6. The method of any one of claims 1 to 5 wherein the additive is a wax or wax-like compound.
7. A shaped elastic or viscoelastic material having a plurality of interstices prepared by the method of any one of claims 1 to 6.

8. Use of an additive which is solid, hard and/or stiff at a temperature of greater than 0 °C to shape an elastic or viscoelastic material having a plurality of interstices within which the additive has been incorporated.

9. A contoured elastic or viscoelastic material having a plurality of interstices, wherein at least a portion of the material has an additive incorporated in the material, wherein the additive is solid, hard and/or stiff at a temperature of greater than 0 °C.

10. A method of shaping an elastic or viscoelastic material having a plurality of interstices, the method including the steps of:

- i. providing an elastic or viscoelastic material having a plurality of interstices;
- ii. contacting the material with an additive so that at least a portion of the additive is incorporated within at least a portion of the plurality of interstices of the material;
- iii. subjecting the material to conditions so that at least a portion of the incorporated additive solidifies, hardens, and/or stiffens;
- iv. shaping the material incorporating the solid, hard, and/or stiff additive so as to form a shaped material incorporating the additive; and
- v. removing at least a portion of the incorporated additive from the shaped material incorporating the additive,

wherein the additive is not water and the additive solidifies, hardens, and/or stiffens when subject to changes in conditions selected from: thermal, magnetic, electrical, chemical, and/or electromagnetic.

11. The method of claim 10 wherein the elastic or viscoelastic material is selected from: foams, felts, lattices, scaffolds, coiled materials, meshes, and/or webs.

12. The method of claim 11 wherein the elastic or viscoelastic material is a foam.

13. The method of any one of claims 10 to 12 wherein the additive is selected from: a wax or wax-like compounds and mixtures thereof; a crystalline solid/supersaturated liquid; a liquid crystallising compound; a non-Newtonian compound that solidifies; granules/powders/other solids which can flow into the elastic or viscoelastic material; liquids that can be hardened or could be arranged and oriented to be stiffer by other means.

14. The method of any one of claims 10 to 13 wherein the additive is a wax or wax-like compound.

15. A method of shaping an elastic or viscoelastic material having a plurality of interstices, the method including the steps of:

- i. providing an elastic or viscoelastic material having a plurality of interstices;
- ii. contacting the material with an additive so that at least a portion of the additive is incorporated within at least a portion of the plurality of interstices of the material;
- iii. subjecting the material to conditions so that at least a portion of the incorporated additive solidifies, hardens, and/or stiffens;
- iv. shaping the material incorporating the solid, hard, and/or stiff additive so as to form a shaped material incorporating the additive; and
- v. removing at least a portion of the incorporated additive from the shaped material incorporating the additive,

wherein the additive solidifies, hardens, and/or stiffens when subject to changes in conditions selected from: magnetic, electrical, chemical, and/or electromagnetic.

16. The method of claim 15 wherein the plurality of interstices is a network of voids.

17. A shaped elastic or viscoelastic material having a plurality of interstices prepared by the method of any one of claims 10 to 16.

18. Use of an additive to shape an elastic or viscoelastic material having a plurality of interstices within which the additive has been incorporated, wherein the additive solidifies, hardens, and/or stiffens when subject to changes in conditions selected from: magnetic, electrical, chemical, and/or electromagnetic.

19. A contoured elastic or viscoelastic material having a plurality of interstices, wherein at least a portion of the material has an additive incorporated in the material, wherein the additive solidifies, hardens, and/or stiffens when subject to changes in conditions selected from: magnetic, electrical, chemical, and/or electromagnetic.

20. A method of forming a shaped elastic or viscoelastic material having a plurality of interstices, the method including the steps of:

- i. in a vessel contacting an additive with a resin capable of being cured to form an elastic or viscoelastic material to form a mixture;

- ii. degassing the mixture, such as by vacuum, and/or mixing the mixture to form a homogeneous blend;
- iii. curing the resin so as to form an elastic or viscoelastic material incorporating at least some of the additive;
- iv. shaping the material incorporating the additive so as to form a shaped material incorporating the additive; and
- v. optionally removing at least a portion of the incorporated additive from the shaped material incorporating the additive,

wherein the additive is not water and the additive solidifies, hardens, and/or stiffens when subject to changes in conditions selected from: thermal, magnetic, electrical, chemical, and/or electromagnetic.