

CLAIMS

1. A headgear for a patient interface, the headgear comprising a plurality of textile panels, each panel having two opposed major faces,
5 wherein the headgear has at least one lapped region in which at least two of the plurality of textile panels respectively overlap and underlap each other, and at least one non-lapped region in which one or more of the plurality of textile panels is not lapped by another of the plurality of textile panels,
the plurality of textile panels define a rear portion for location at the rear of
10 the head of a patient, the plurality of textile panels comprise a first panel and a second panel, in a first non-lapped region the first panel is not lapped by the second panel, and the first non-lapped region of the headgear and has a concave edge and a convex edge, -and
wherein at the or each at least one lapped region the textile panels are
15 bonded to each other ~~by an adhesive~~.
2. The headgear of claim 1, wherein ~~a first panel~~ two of the plurality of textile panels comprises ~~a different materials, to that of a second panel of the plurality of panels, and the different materials comprise~~ having one or more of a different texture, softness, stiffness or flexibility, stretch properties, density,
20 thickness, colour, frictional coefficient in relation to a reference material, breathability, or degree of transparency or sheer.
3. The headgear of claim 1 or 2, wherein the plurality of textile panels comprise at least one panel having a first extensibility and at least one panel having a second, relatively lesser, extensibility.
- 25 4. The headgear of claim 2, wherein the first panel and second panel comprise different materials.
5. The headgear of claim 3, wherein the first panel has a first extensibility, and the second panel has a second, relatively lesser, extensibility.
- 4.6. The headgear of any one of claims 1 to 35, wherein the plurality of
30 textile panels define :-

_____ a rear portion for location at the rear of the head of a patient, _____
_____ a crown strap, _____
_____ and at least two side straps for attachment to the patient interface.
7. The headgear of claim 6, wherein the plurality of textile panels define
35 a crown strap.
- 5.8. The headgear of claim 47, wherein the rear portion transfers loads between the at least two side straps, and the rear portion comprises ~~at least one~~

~~panel~~the second panel ~~of a first material~~ which laps a portion of a side strap panel of each of the at least two side straps.

9. The headgear of claim 8, wherein the at least two side straps comprise two lateral sets of side straps, each set having an upper side strap and a lower side strap, and the side strap panel of each of the sets of side straps comprises a unitary side strap panel.

10. The headgear of claim 9, wherein between the upper side strap and lower side strap of each set of side straps, the headgear comprises a second non-lapped region of one of the plurality of textile panels.

~~6.11.~~ The headgear of any one of claims 6 to 10~~claim 4 or 5~~, wherein an extent of the rear portion to be located lowest on the rear of the head of a patient ~~comprises a lower panel of a second material~~is comprised by the first non-lapped region of the headgear.

12. The headgear of any one of claims 1 to 11, wherein the concave edge of the first non-lapped region of the headgear defines a lower edge of the rear portion of the headgear in use.

13. The headgear of any one of claims 1 to 12, wherein the convex edge of the first non-lapped region of the headgear bounds an edge of the second panel.

14. The headgear of any one of claims 1 to 13, wherein the first lapped region of headgear includes at least one bonded region in which the first panel and second panel are bonded together and at least one non-bonded region in which the first panel and second panel are not bonded together.

~~7.15.~~ The headgear of any one of claims 1 to 14, wherein at an upper edge of the headgear the headgear defines a third non-lapped region of one of the plurality of textile panels.~~The headgear of claim 6, wherein the lower panel of the second material is of a relatively greater extensibility than the plurality of panels of the first material.~~

~~8.—The headgear of claim 6 or 7, wherein a portion of the lower panel is in a non-lapped region of the headgear, and the portion of the lower panel is substantially crescent-shaped.~~

~~9.—The headgear of any one of claims 4 to 8, wherein the crown strap comprises a pair of crown strap portions which are adjustably fixable to each other to provide a variable length crown strap, each crown strap portion comprising an internal crown strap portion panel and an external crown strap portion panel which are adhesively bonded to each other.~~

~~10.—The headgear of any one of claims 4 to 9, wherein the at least two side straps comprise two lateral sets of an upper and a lower side strap, each set of~~

side straps for connection to corresponding sides of the patient interface, and wherein the two upper side straps comprise a unitary panel which extends across the rear portion of the headgear and the unitary panel is provided within a lapped region across at least part of the rear portion of the headgear and within a pair of distal non-lapped regions.

11.—The headgear of claim 10, wherein a set of upper and lower side strap comprise a unitary panel, the unitary panel configured to extend around a rear of an ear of a patient.

12.—The headgear of claim 11, wherein an edge profile of each ear loop comprises a pair of straight line portions.

13.—The headgear of any one of claims 10 to 12, wherein terminal portions of either or both of the upper and lower side straps include gripping tabs comprising a first and second tab panels, the tab panels respectively overlapping and underlapping the terminal portion at a first tab region and lapping each other at a more distal second tab region.

14.—The headgear of claim 13, wherein the headgear at the second more distal tab region is of greater stiffness than the headgear at the first tab region.

15.—The headgear of any one of claims 10 to 14, wherein each side strap of the set of side straps comprises a series of tactile features along at least one surface of the side strap, the tactile features for providing tactile feedback to a patient of different adjustment conditions of the respective strap.

16.—The headgear of claim 15, wherein the series of tactile features provide for indexing of the adjustment of each respective side strap.

17.—The headgear of any one of claims 10 to 16, wherein each side strap comprises a strap panel, the strap panel lapped on at least one major face with a tactile feedback panel, wherein the tactile feedback panel is one or more of thinner, harder, and stiffer than the strap panel which it laps and wherein the tactile feedback panel and the strap panel are bonded by an adhesive.

18.—The headgear of claim 17, wherein the tactile feedback panel comprises the tactile features, the tactile features provided by a series of voids through the tactile feedback panel which present the tactile feedback panel as having a series of ridges relative to the strap panel to which it is lapped.

19.—The headgear of claim 18, wherein the tactile feedback panel is one or both of harder and stiffer than the strap panel, and the series of ridges are for mechanically engaging with a buckle of the patient interface.

20.—The headgear of any one of claims 4 to 19, wherein an edge of one or more of the crown strap, rear portion, and side straps, is treated with a conditioner.

21.—The headgear of any one of claims 4 to 20, wherein one or more of the set of side straps, the rear portion, and the crown strap comprise at least in part a relatively elastic panel which is overlapped and underlapped by respective relatively inelastic panels.

22.—The headgear of any one of claims 1 to 21, wherein at one or more lapped regions the headgear is at least partially one or both of overlapped and underlapped by an adhesive.

23.—The headgear of any one of claims 1 to 22, wherein the adhesive comprises a hot melt adhesive which is interposed between the panels at the or each at least one lapped region.

24.—The headgear of any one of claims 1 to 23, wherein the adhesive is provided in a sheet or film like form.

25.—The headgear of any one of claims 1 to 24, wherein at least part of a panel at an edge of the headgear is rolled back onto itself and an adhesive is provided between the rolled back part of the panel and a part of the panel onto which it is rolled back.

26.16. The headgear of any one of claims 1 to 2515, wherein at least part of an edge of the headgear comprises an edge softening panel a) which defines at least part of an internal surface, relative to the head of a patient in use, of the headgear, b) a portion of which is lapped to a more interior panel an interior panel which is located away from the part of the edge of the headgear comprised by the edge softening panel, and c) wherein the edge panel which comprises a material that is thinner and/or softer than that of the more interior panel to which it is lapped.

27.—The headgear of claim 26, wherein the edge softening panel is lapped to a more interior panel of the headgear such that the edge softening panel defines at least part of an internal surface, relative to the head of a patient in use, of the headgear.

28.—The headgear of claim 26 or 27, wherein an edge softening panel is provided at an upper side of the rear portion, and the edge softening panel is provided within both a lapped region and a non lapped region, and wherein the non lapped region forms at least part of an upper peripheral edge of the rear portion, and wherein the edge softening panel at the non lapped region is configured, in use and towards the upper peripheral edge of the rear portion, to roll away from the head of the patient.

29.—~~The headgear of claim 28, wherein the edge softening panel at the non-lapped region extends away from an adjacent lapped region a distance of about 5 times to about 20 times a thickness of the edge softening panel.~~