CLAIMS

1. Method implemented by computer means for determining a mold for a lens element, the lens element comprising

- a holder comprising a refraction area having a first refractive power;
- a plurality of optical elements placed on at least one surface of the holder having a second refractive power different from the first refractive power of the holder; and

wherein at least a zone of at least one optical elements and at least a zone of the holder on which the optical elements are placed are intended to be covered by at least one layer of at least one coating element,

wherein the method comprises:

- providing mold data indicating at least an initial shape of the mold, the initial shape of the mold corresponding to a shape of the surface of the holder and to at least a shape of the optical elements of the lens element, the shape of the optical elements being associated with a targeted optical function;
- providing a coating mold transfer law associated with a coating process of a lens element comprising the optical elements, the coating process being associated with the coating element, the coating mold transfer law corresponding to transformations to apply to the shape of the mold for compensating modifications of the targeted optical function of said optical elements induced by the coating process; and
- determining a shape of the mold for a lens element based at least on the mold data and the coating mold transfer law.

2. The method according to the preceding claim further comprising prior to determining a shape of the mold:

- providing a cooling transfer law associated with a cooling process of a molded lens element comprising optical elements, the cooling transfer law corresponding to transformations to apply to the shape of the mold for compensating modifications of the targeted optical function of said

optical elements induced by the retraction of the lens element material during the cooling process,

wherein the shape of the mold for a lens element the wearer is determined based on the mold data, the coating mold transfer law and the cooling transfer law.

~~3. A mold for a lens element comprising a plurality of optical elements having a targeted optical function and intended to be covered by at least one layer of at least one coating element, comprising:~~

~~- a first molding element having a first surface, the first surface having a first surfacic curvature and comprising a plurality of surfacic elements having at least a second surfacic curvature that differs from the first,~~

~~- a second molding element having a second surface,~~

~~- a gasket having an inner and an outer surfaces,~~

~~wherein the first surface of the first molding element, the second surface of the second element and the inner surface of the gasket form a molding cavity in which a molding material is to be filled.~~

~~4. The mold according to the preceding claim wherein every surfacic element of the plurality of surfacic elements presents an axis of symmetry (Di).~~

~~5. The mold according to the preceding claim wherein the plurality of surfacic elements have a contour shape being inscribable in a circle (C) on the first surface and having a diameter greater than or equal to 0.8 mm and smaller than or equal to 3.0 mm.~~

~~6. The mold according to the preceding claim wherein the axis of symmetry (Di) of the surfacic elements is the center of the corresponding circle (C).~~

~~7. The mold according to any of claims 5 to 6 wherein the mean surfacic curvature of the surfacic element in a central zone of the surfacic element is different from the mean surfacic curvature of the surfacic element in a peripheral zone of the surfacic element, the central zone of the surfacic element corresponding to a circular zone comprised in the circle (C), having the same center as said circle (C) and a~~

~~radius equal to 0.75 times the radius of the circle (C), the peripheral zone of the surfacic element corresponding to the concentric ring of the circle (C) distant by at least 0.75 times the radius of the surface of the surfacic element.~~

~~8. The mold according to any of claim 4 to 7 wherein along a section of the surfacic element passing through the intersection point between the axis of symmetry (Di) of said surfacic element and said surfacic element, the surfacic curvature of the surfacic element increases along the section from said intersection to a first point and decreases from the first point to the periphery of the section.~~

~~9. The mold according to any of claims 3 to 8 wherein at least two of the plurality of surfacic elements are non-contiguous.~~

~~10. The mold according to any of claims 3 to 9 wherein at least two of the plurality of surfacic elements are contiguous.~~

~~11. The mold according to any of claims 3 to 10 wherein the plurality of surfacic elements are positioned on a structured network.~~

~~12. The mold according to any of claims 3 to 11 wherein the plurality of surfacic elements are positioned along a plurality of concentric rings.~~

~~13. The mold according to the preceding claim wherein the surfacic curvature of the surfacic elements placed on the same concentric ring are identical.~~

~~14. The mold according to the preceding claim wherein the plurality of concentric rings of surfacic elements are centered on the geometric center of the first surface of the first molding element.~~

~~15. The mold according to any of claims 3 to 14 wherein along at least one section of the first molding element passing through a geometric center of the first surface of said first molding element, the mean surfacic curvature in a central zone of~~

~~the surfacic elements crossed by said section increases from said geometric center towards the peripheral part of said section.~~

~~16. The mold according to any of claims 3 to 15 wherein along at least one section of the first molding element passing through a geometric center of the first molding element, the mean surfacic curvature in a central zone of the surfacic element crossed by said section increases from a first point of said section towards the peripheral part of said section and decreases from a second point of said section towards the peripheral part of said section, the second point being closer to the peripheral part of said section than the first point.~~

~~17. The mold according to any of claims 3 to 16 wherein for every circular zone having a radius comprised between 4 and 8 mm comprising a geometrical center of the first surface of the first molding element greater or equal to said radius + 5mm, the ratio between the sum of areas of the parts of the plurality of surfacic elements located inside said circular zone and the area of said circular zone is comprised between 20% and 70%.~~

~~18~~3. Method implemented by computer means for determining a lens element, the lens element comprising:

- a holder comprising a refraction area having a refractive power based on a prescription for correcting an abnormal refraction of an eye of the person;
- a plurality of optical elements placed on at least one surface of the holder so as to at least one of slow down, retard or prevent a progress of the abnormal refraction of the eye of the person; and
- at least one layer of at least one coating element covering at least a zone of at least one optical elements and at least a zone of the holder on which the optical elements are placed,

wherein the method comprises:

- providing lens data, the lens data indicating at least a shape of the lens element to be determined, the shape of the lens element corresponding to a shape of the holder and to at least a shape of the optical elements of the

lens element, the shape of the optical elements being associated with a targeted optical function;

- providing a coating lens transfer law associated with a coating process of a lens element comprising the optical elements, the coating process being associated with the coating element, the coating lens transfer law corresponding to transformations to apply to the shape of the surface of the lens element comprising the optical elements for compensating modifications of the targeted optical function of said optical elements induced by the coating process; and
- determining the lens element based at least on the lens data and the coating lens transfer law.

4. The method according to claim 3 further comprising:

- manufacturing a lens element based on the determined lens element adapted for the wearer; and
- coating at least a zone of the surface and at least a zone of the at least one optical element with at least one coating element based on the coating process.

~~19~~5. A method implemented by computer means for determining a transfer law associated with a coating process of a lens element, the method comprising:

- providing a lens element, the lens element comprising:
    - a holder comprising a refraction area having a first refractive power,
    - at least one optical element having at least one targeted optical function and placed on at least one surface of the holder, the at least one targeted optical function being different from the first refractive power,
- coating at least a zone of the holder and at least a zone of at least one optical element with at least one coating element based on a coating process, the coating process being associated with the at least one coating element;

- measuring at least one optical characteristic of at least a zone of the at least one optical element covered by the coating element;
- determining at least one optical characteristic error based on a comparison of the measured at least one optical characteristic of the coated optical element and the at least one targeted optical function;
- compiling information corresponding to the determined optical characteristic error into database as correction information;
- determining a transfer law associated with the coating process and the at least one optical element based on the correction information of the database, the transfer law correcting an original shape of the surface of the lens element comprising the at least one optical element so that once coated by the at least one coating element, said at least one coated optical element reaches a targeted optical function.

6. The method according to claim 5 further comprising prior to the measuring step, a step of polymerizing the at least one coating element covering a zone of the holder and at least a zone of at least one optical element.

7. The method according to any of claims 5 to 6 comprising further to the coating step, a second step of coating at least a zone of the holder and at least a zone of at least one optical element with at least one coating element based on a coating process, the coating process being associated with the at least one coating element.

8. The method according to claim 7, wherein the at least one coating element used during the first step of coating is the same as the one used during the second step of coating.

9. The method according to claim 7, wherein the at least one coating element used during the first step of coating is different from the one used during the second step of coating.

10. The method according to any of claims 5 to 9 wherein the at least one coating element comprises anti-abrasion features.

11. The method according to any of claims 5 to 10 wherein the at least one coating element comprises features selected from the group consisting of anti-scratch, anti-reflection, anti-smudge, anti-dust, UV filtration, blue light-filtration.