Claims

1. A method for molding an ophthalmic lens, in particular a soft or a hard contact lens, using a mold comprising male and female (20) mold halves ,each of said male and female (20) mold halves being provided with a lens forming surface (21), with a mold cavity being formed between said lens forming surfaces (21) of said male and female (20) mold halves when the mold is closed, the method including the steps of:
- applying a temporary coating to at least a portion of at least one of said lens forming surfaces (21) of said male and female (20) mold halves, said temporary coating being capable of reducing adhesive forces between a lens forming material and said lens forming surface (21);
- drying said temporary coating applied to said at least one portion of said at least one of said lens forming surfaces (21);
- introducing a lens forming material into said female mold half (20);
- assembling the male and female (20) mold halves to close the mold;
- curing said lens forming material in said mold cavity formed between said lens forming surfaces (21) of said male and female (20) mold halves to form said ophthalmic lens;
- opening said mold; and
- removing said ophthalmic lens from said male mold half or from said female mold half.

2. Method according to claim 1, further comprising the step of
- removing said temporary coating from said at least one portion of said at least one of said lens forming surfaces (21) after having removed said ophthalmic lens from said male and female (20) mold halves.

3. Method according to any one of claims 1 or 2, wherein said temporary coating is applied to the entire lens forming surface (21) of at least one of said male and female (20) mold halves.

4. Method according to any one of the preceding claims, wherein said temporary coating is also applied to an annular region (22) of said male and female (20) mold halves outside said lens forming surface (21).

5. Method according to any one of the preceding claims, wherein said temporary coating is applied in liquid form.

6. Method according to claim 5, wherein said temporary coating is applied to said lens forming surface (21) with the aid of a coating head (2) capable of maintaining a continuous flow of said liquid to and from a coating face (7) of said coating head (2) during the application step.

7. Method according to any one of claims 5 or 6,wherein said liquid is applied to said lens forming surface (21) to form a film having a thickness in the range of about 100 μm to about 200 μm.

8. Method according to any one of the preceding claims, wherein said temporary coating is selected from the group consisting of polyvinylalcohol and copolymers of vinylalcohol; polyvinylpyrrolidone; copolymers of N-vinylpyrrolidone with vinylacetate, polytetrahydrofurane, polyethylene glycols, polypropylene glycols, copolymers of polyethylene glycols with polypropylene glycols, polyacrylamide and copolymers thereof with acrylic acid; poly(vinylpyridine) and copolymers thereof.

9. Method according to any one of the preceding claims, wherein said step of drying said temporary coating is performed using infrared radiation.

10. Method according to any one of claims 2 to 9, wherein said step of removing said temporary coating is performed by exposing said respective coated lens forming surface (21) to a rinsing liquid, such as water or water with additives and solvents.

11. Method according to any one of the preceding claims, wherein said lens forming material is selected from the group consisting of polymers based on polyvinyl alcohols (PVA), silicone hydrogels (SiHy), and polyethylene glycols (PEG).

12. A device for applying a coating to a surface of an ophthalmic lens mold, in particular a lens mold for molding hard or soft contact lenses, said lens mold comprising male and female (20) mold halves, each of said male and female (20) mold halves being provided with a lens forming surface (21), with a mold cavity being formed between said lens forming surfaces (21) of said male and female (20) mold halves when the mold is closed, said device comprising at least one coating head (2) having a coating face (7) adapted to be contacted with said portion of said at least one lens forming surface (21) of said male and female (20) mold halves, said coating head (2) being provided with feed and discharge ports (4, 5) adapted to be connected with feed and discharge lines in order to allow for a continuous flow of a temporary coating substance to and from said coating face (7) at least during contact of said coating face (7) with said portion of said lens forming surface (21) of said at least one of said male and female (20) mold halves.

13. Device according to claim 12, wherein said coating face (7) comprises a curved outer surface generally matching a concave or convex curvature of said lens forming surface (21) of said male or female (20) mold half, respectively.

14. Device according to any one of claims 12 or 13, wherein said coating face (7) comprises a mesh (6) which is made of a material selected from the group consisting of polyethylene, polypropylene, polytetrafluoroethylene, polyamide, polyester, silk, steel, and combinations of these materials.

15. Device according to claim 14, wherein said mesh (6) has a mesh size (m) of about 25 μm to about 1 mm.

16. Device according to any one of claims 14 or 15, wherein said mesh (6) is provided with projections (8) protruding from the coating face (7) and having a length in the range of about 50 μm to about 2 mm.

17. Device according to of claim 13, wherein the coating head (2) further comprises a homogenizer (10) arranged upstream of said mesh.

18. Device according to any one of the preceding claims, comprising two coating heads (2), each one of said coating heads (2) having a coating face (7), with the coating face of one of said two coating heads being adapted to apply a temporary coating to at least a portion of said lens forming surface of said male mold half and said coating face (7) of the other of said two coating heads (2) being adapted to apply a temporary coating to at least a portion of said lens forming surface (21) of said female (20) mold half.

CLAIMS

1. An invention not claimed in any divisional application.