Claims

1. Method of separating excess lens forming material from a molded ophthalmic lens, in particular a contact lens, wherein after polymerization and/or cross-linking of the lens forming material (P) within a mold cavity (4) of a mold comprising female and male mold halves (2, 3) to form an ophthalmic lens non-polymerized and/or non-cross-linked lens forming material is flushed away from the mold halves (2, 3) with a jet of a fluid flushing medium, such as, for example, water or a solvent or an inert gas, and subsequently the molded lens is dried, wherein the flushing is accomplished with the mold halves (2, 3) being still arranged in a closed position.

2. Method according to claim 1, wherein for the flushing of the mold halves (2, 3) the flushing medium is injected into a peripheral zone of the mold cavity (4) through a feed channel (8; 28), and wherein the flushing medium together with the excess lens forming material is discharged through a discharge channel (9; 29).

3. Method according to claim 2, wherein the female and male mold halves (2, 3) are axially guided in a guide sleeve (7) and wherein the guide sleeve is provided with feed and discharge ports (10, 11) which communicate with the feed channel (8; 28) and the discharge channel (9; 29), respectively.

4. Method according to claim 2 or 3, wherein the feed channel (8; 28) and the discharge channel (9; 29) are arranged in vicinity of separation planes (51, 61) of the female and male mold halves (2, 3).

5. Method according to any one of claims 2 - 4, wherein the feed channel (28) and the discharge channel (29) are arranged such, that the flushing medium is injected through the feed channel (28) into the peripheral zone of the mold cavity (4) substantially tangentially and after being guided around the peripheral zone is discharged into the discharge channel (29) at an opposite circumferential portion of the mold cavity (4).

6. Method according to claim 5, wherein the flushing medium is injected and discharged in directions which extend generally parallel to each other.

7. Method according to any one of the preceding claims, wherein the molded ophthalmic lens is flushed with a liquid flushing medium.

8. Method according to any one of claims 2 - 7, wherein after flushing the molded lens is dried by subjecting it to a heated gas stream, preferably a stream of heated air, which is introduced through the feed channel (8; 28) and discharged through the discharge channel (9; 29) and vice versa.

9. Method according to claim 8, wherein after the drying of the molded lens the discharge channel (9, 29) through which the heated gas stream is discharged, is closed and subsequently the mold (1) is opened by moving the female and male mold halves (2, 3) away from each other.

10. Apparatus for carrying out the method according to any one of the preceding claims, comprising a female and a male mold half (2, 3) which in a closed position define a mold cavity (4) and are guided axially in a guide sleeve (7), the apparatus comprising a feed channel (8, 28) and a discharge channel (9, 29) which open towards a feed port (10) and a discharge port (11), respectively, at a circumference of the guide sleeve (7) and are in connection with a peripheral zone of the mold cavity (4).

11. Apparatus according to claim 10, wherein the feed channel (8, 28) and the discharge channel (9, 29), respectively, are arranged in vicinity of separation planes of the female and male mold halves (2, 3).

12. Apparatus according to claim 10 or 11, wherein the feed channel (28) and the discharge channel (29) extend substantially tangentially to the peripheral zone of the mold cavity (4).

13. Apparatus according to claim 12, wherein the feed channel (28) and the discharge channels (29) open to the peripheral zone of the mold cavity (4) at opposite sides of a circumference of the mold cavity (4).

14. Apparatus according to any one of claims 10 - 13, wherein the feed channel (8, 28) and the discharge channel (9, 29) extend in a generally parallel direction.

15. Apparatus according to any one of claims 10 – 14, wherein at least the feed port (10) has a cylindrical shape and is adapted such, that upon insertion of a conical tip (12) of a feed line a sealing is achieved.

The invention claimed is:

1. A method of separating excess lens forming material from a molded ophthalmic lens, comprising the steps of dosing a lens forming material into a mold cavity of a mold comprising female and male mold halves, applying energy to polymerize and/or crosslink the lens forming material, and then flushing from the mold halves non-polymerized and/or non-cross-linked lens forming material with a jet of a fluid flushing medium, wherein for the flushing of the mold halves the flushing medium is injected into a peripheral zone of the mold cavity through a feed channel, and wherein the flushing medium together with the excess lens forming material is discharged through a discharge channel; and then drying the molded lens by subjecting it to a heated gas stream which is introduced through the feed channel and discharged through the discharge channel, and wherein the step of flushing is accomplished with the mold halves being arranged in a closed position.

2. The method according to claim 1, wherein the female and male mold halves are axially guided in a guide sleeve and wherein the guide sleeve is provided with feed and discharge ports which communicate with the feed channel and the discharge channel, respectively.

3. The method according to claim 2, wherein the feed channel and the discharge channel are arranged in vicinity of separation planes of the female and male mold halves.

4. The method according to claim 1, wherein the feed channel and the discharge channel are arranged such, that the flushing medium is injected through the feed channel into the peripheral zone of the mold cavity substantially tangentially, and after being guided around the peripheral zone is discharged into the discharge channel at an opposite circumferential portion of the mold cavity.

5. The method according to claim 4, wherein the flushing medium is injected and discharged in directions which extend generally parallel to each other.

6. The method according to claim 1, wherein the flushing medium is selected from the group consisting of air, inert gas, water and isopropanol.

7. The method according to claim 1, wherein after the drying of the molded lens the discharge channel through which the heated gas stream is discharged, is closed and subsequently the mold is opened by moving the female and male mold halves away from each other.