Section 1

Introduction to contact lenses

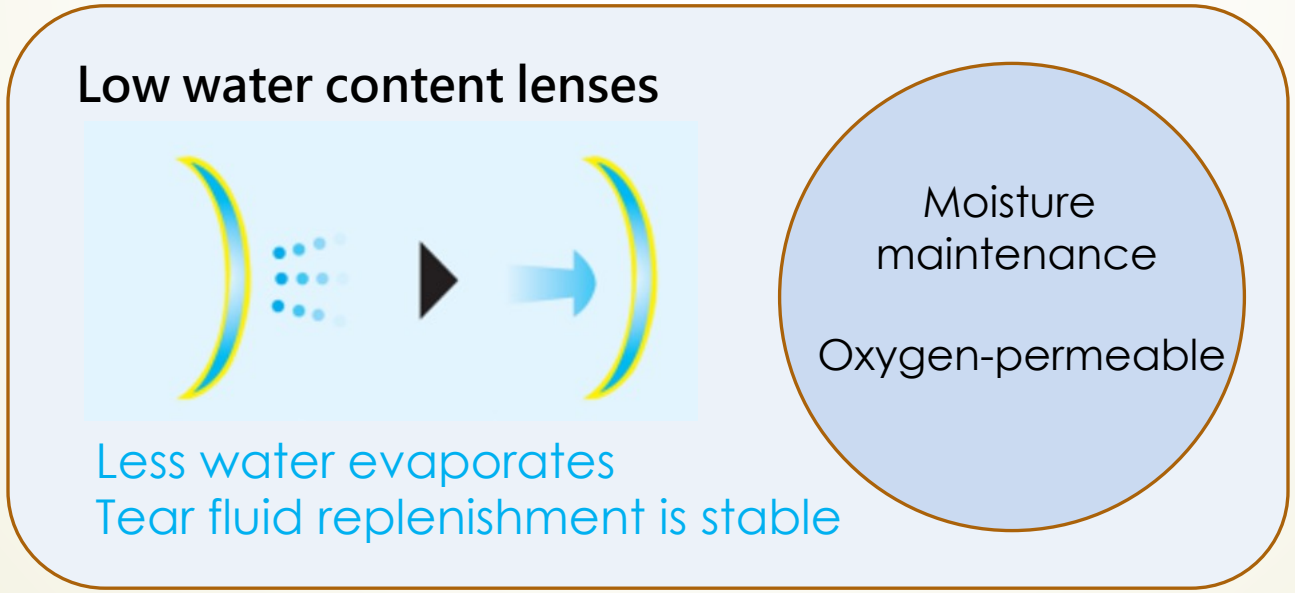
Product Properties – Material properties

Low water content lenses :

The lenses are complemented by an exclusive design and formula for the best lens comfort。

When using lenses in places with high latitudes and low humidity, the moisture in the lenses is easily vaporized into the air.

The use of materials with low water content and high moisture retention can reduce the rate of evaporation of tear fluid, so that tear replenishment is greater than lens evaporation, and it is longer and more comfortable to wear。



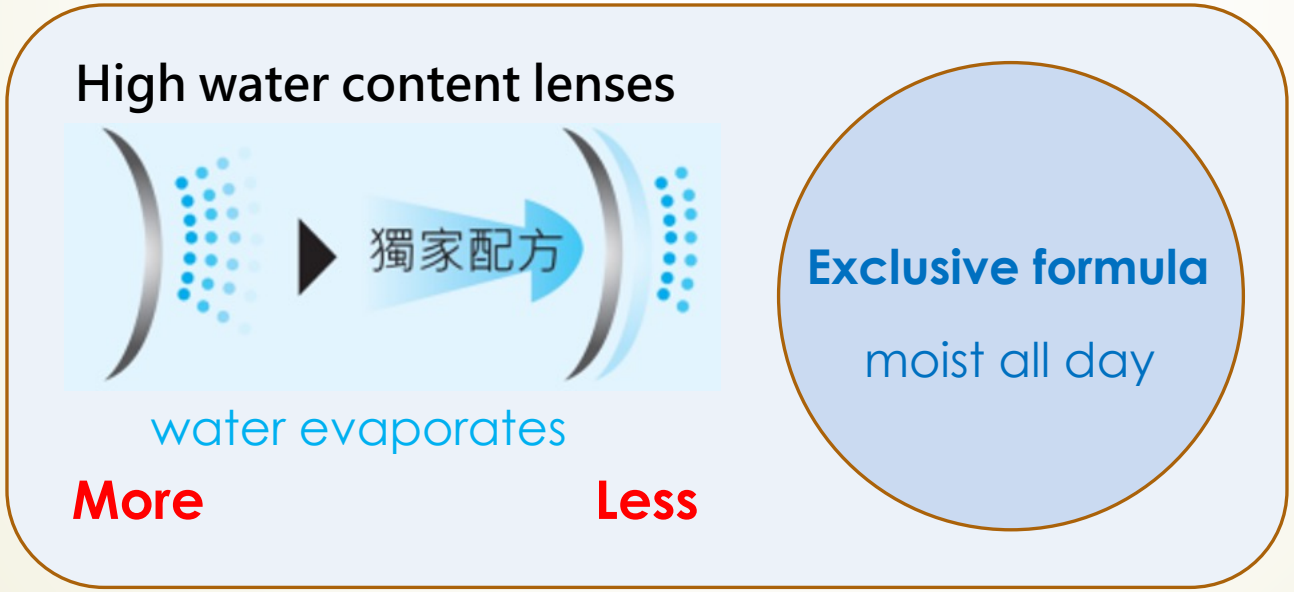
Product Properties – Material properties

High moisture content lenses:

The lenses are paired with an exclusive formula for maximum hydration.

The moisture from the contact lenses will slowly evaporate over time, and the tears in the eyes will be replenished into the contact lenses.

The use of highly moisturizing materials can reduce the speed of evaporation of tear fluid and make it more comfortable to wear.

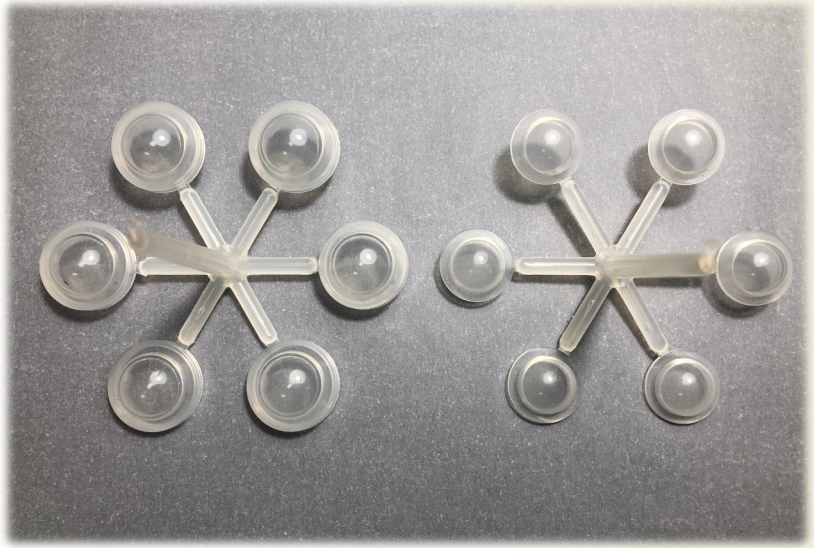


Product Characteristics – Process Processes

Contact lens manufacturing method

Cast Molding

Cast molding, is to inject the lens raw materials between the two optical molds, after the mold is pressed, the use of light or heating, the raw materials are polymerized and cured to form the lens, and then the mold is disassembled, the lenses are removed, and hydration extraction is carried out, that is, the lens manufacturing process is completed.



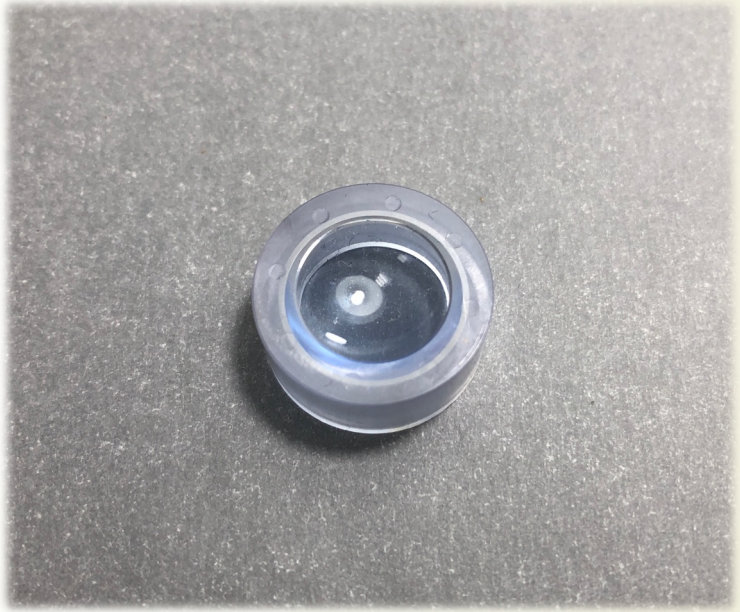
Casting method - plastic optical mold
(Upper mode + lower mold)

Product Characteristics – Process Processes

Contact lens manufacturing method

Spin Cast

Spin Cast , the lens monomer is injected into the optical mold, through the rotation of centrifugal force, with gravity and surface tension, the raw material monomer is evenly distributed on the mold, and then through the illumination of the lens curing, and then hydration extraction, that is, to complete the lens manufacturing process.



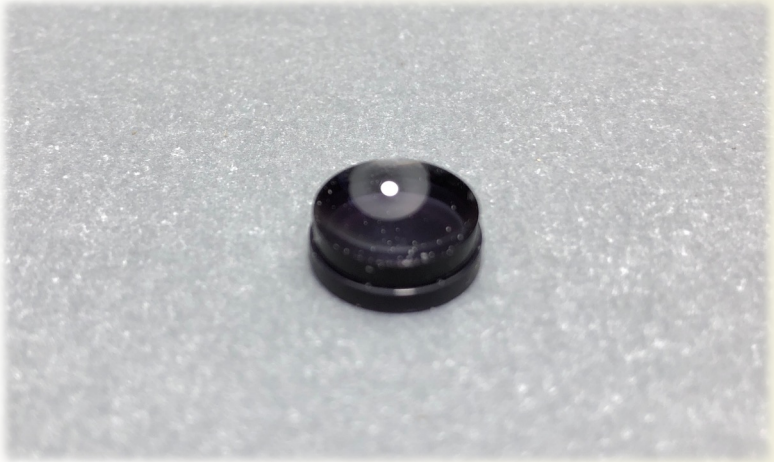
Spin Cast - plastic optical mold

Product Characteristics – Process Processes

Contact lens manufacturing method

Lathe Cut

- Turning: The rigid lens raw material is mounted on the lathe, and the excess material is removed by cutting with a diamond knife to form the front and back surfaces of the lens, the peripheral curvature, the degree of astigmatism, the astigmatism angle and the edge.
- Polishing: Remove the finished turning lens, use polishing paste to remove the marks and knife marks of the lens, improve optical performance, improve clarity, and smooth the edges of the lens.



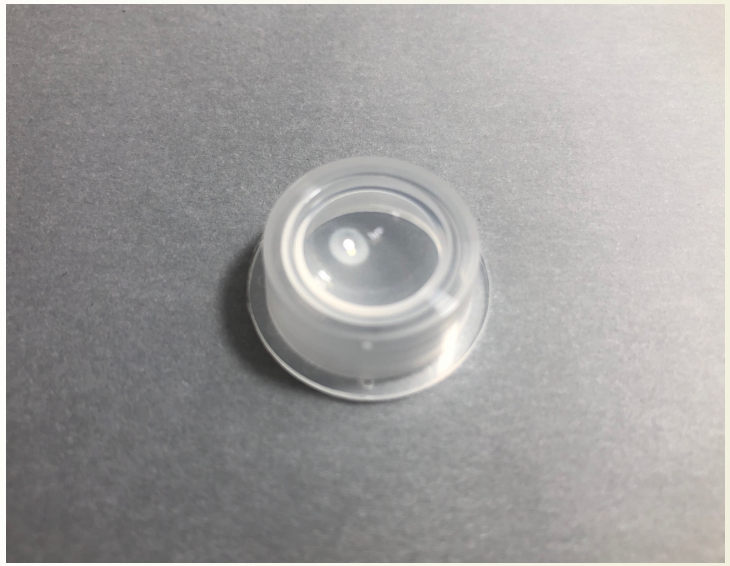
Lathe Cut- raw material for plastic lenses

Product Characteristics – Process Processes

Contact lens manufacturing method

Spin Cast Molding

Spin Cast Molding The use of special optical film design, so that the lens appearance, edge arc, thickness and casting method are the same, while solving the problem of single body reflux of rotary mold method. It has the stability of the casting method (degree, base arc, thickness), but the yield is higher than the casting method, the production cost is lower than the casting method, the raw material is less, the defect is less, and the testing operator is less.



Spin cast molding - plastic optical mold

Product Characteristics – Process Process Comparison

	Lathe	Cast molding	Spin molding	Spin Cast molding
Equipment costs	★★★★★	★★	★★★	★★★★
Lens cost	★	★★★★	★★★	★★★★★
Total yield	★★	★★★★	★★★	★★★★★
Functional lenses	★★★★★	★★★★	★★	★★★
The type of defect	★	★★★	★★	★★★★★
Operator (produce) **Operator (Inspection)**	★ ★	★★★★ ★★	★★★ ★★	★★★★★ ★★★★
Operator training time	★	★★★★★	★★★	★★★★★
Process drawbacks	Turning,grinding and Polishing causes defects and low productivity	Bubbles and residues	Turning and Polishing causes defects. Optical mold material cost is high	Long upfront development time

Product Introduction – Product Items

- **(✓) 38%-42% Low moisture content : Transparent aqua blue flakes and color cosmetics tablets.**
- **(✓) 55% High moisture content: Transparent aqua blue flakes and colored beauty tablets.**
- **(✓) Anti-UV lenses.**
- **(✓) Filter blue lenses**
- **(✓) Silicone lenses (blue tint)**
- **(✓) Silicone lenses (Color lens)**

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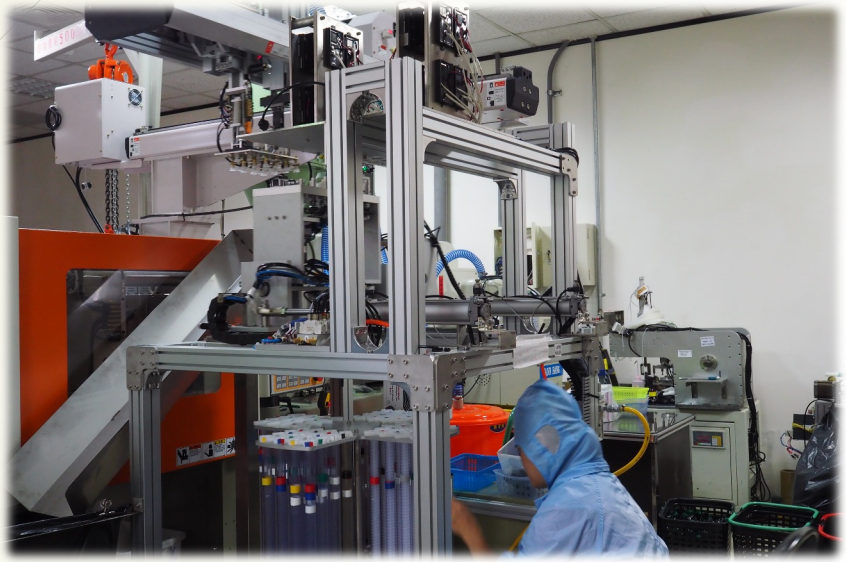
- (○) Corneal bandage mirror (for surgery)
- (○) Astigmatism contact lenses
- (○) Progressive multifocal contact lenses (presbyopia)

Section 2

Production process

Production Process – Color lens



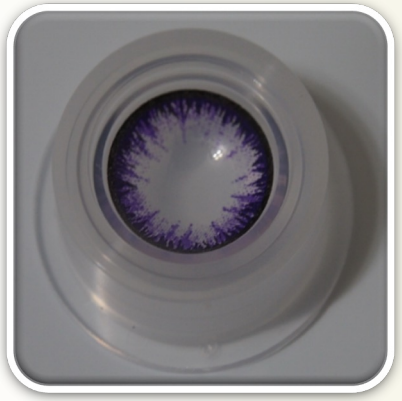
Optical mold injection machine

Optical mold

Optical mold injection
Pattern transfer
Lens molding
Hydration extraction
Lens examination
Lens encapsulation
sterilization
Inspection of finished products
Finished product packaging
Packaging inspection
Product shipment

Production Process – Color lens

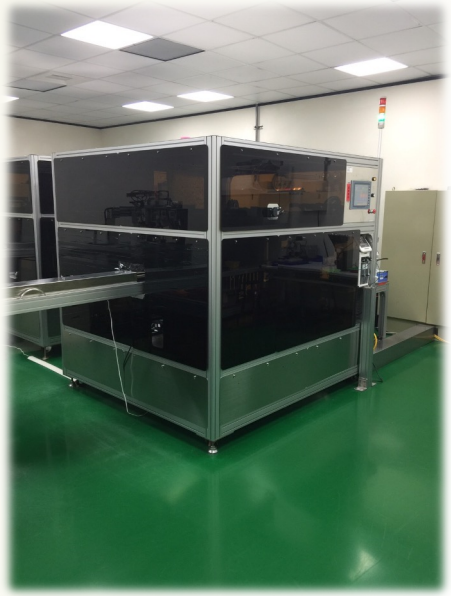
Color lens pattern printer

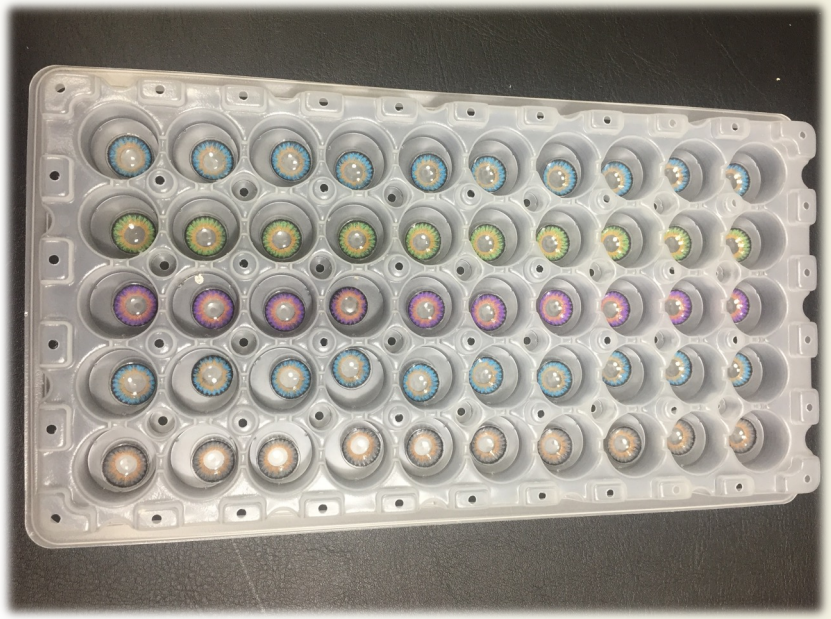


Printing completes the optical mold

Optical mold injection | Pattern transfer | Lens molding | Hydration extraction | Lens examination | Lens encapsulation | sterilization | Inspection of finished products | Finished product packaging | Packaging inspection | Product shipment

Production Process – Colored lens



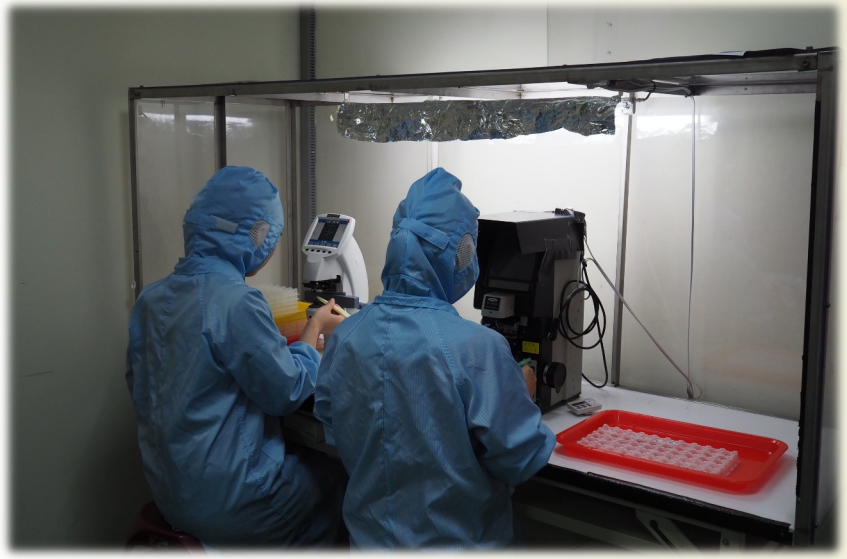


Lens manufacturing

Optical mold injection | Pattern transfer | Lens molding | Hydration extraction | Lens examination | Lens encapsulation | sterilization | Inspection of finished products | Finished product packaging | Packaging inspection | Product shipment

Production Process – Colored lens

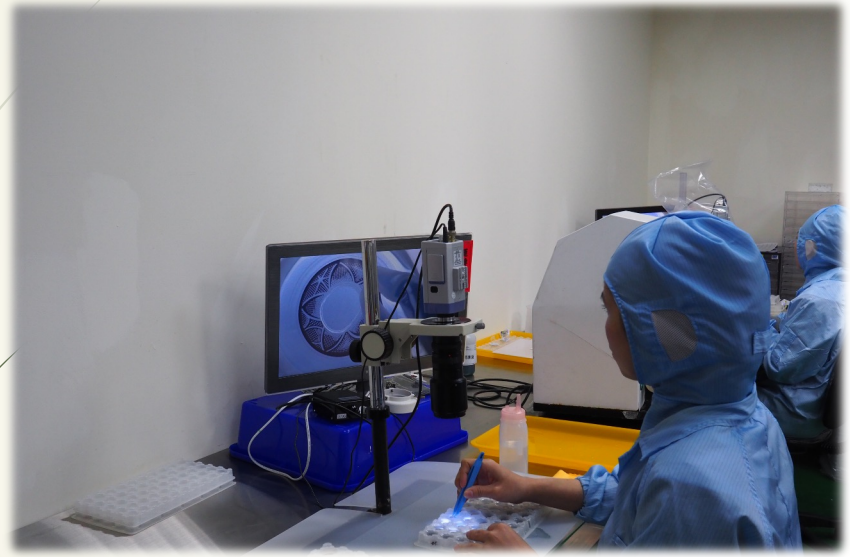
Buffer solution



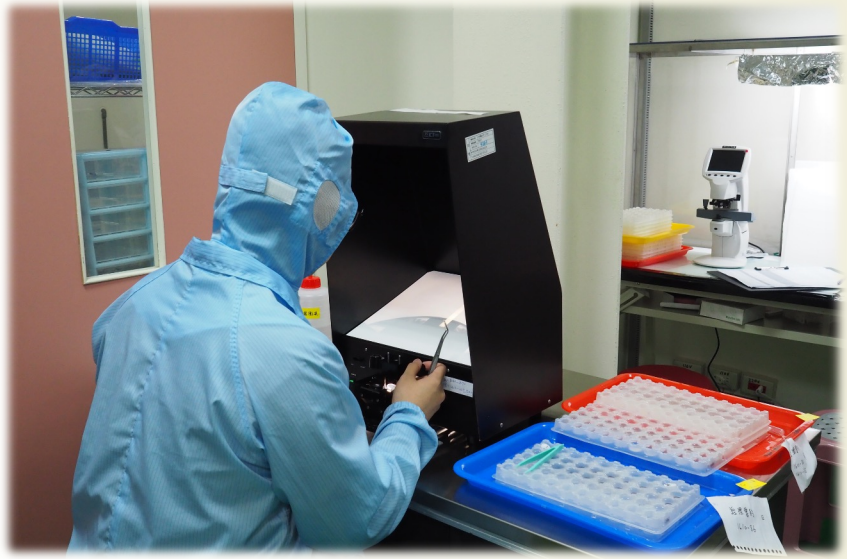
Lens examination - power

Optical mold injection | Pattern transfer | Lens molding | Hydration extraction | Lens examination | Lens encapsulation | sterilization | Inspection of finished products | Finished product packaging | Packaging inspection | Product shipment

Production Process – Colored lens



Lens examination - appearance



Lens examination – base curve

Optical mold injection | Pattern transfer | Lens molding | Hydration extraction | Lens examination | Lens encapsulation | sterilization | Inspection of finished products | Finished product packaging | Packaging inspection | Product shipment

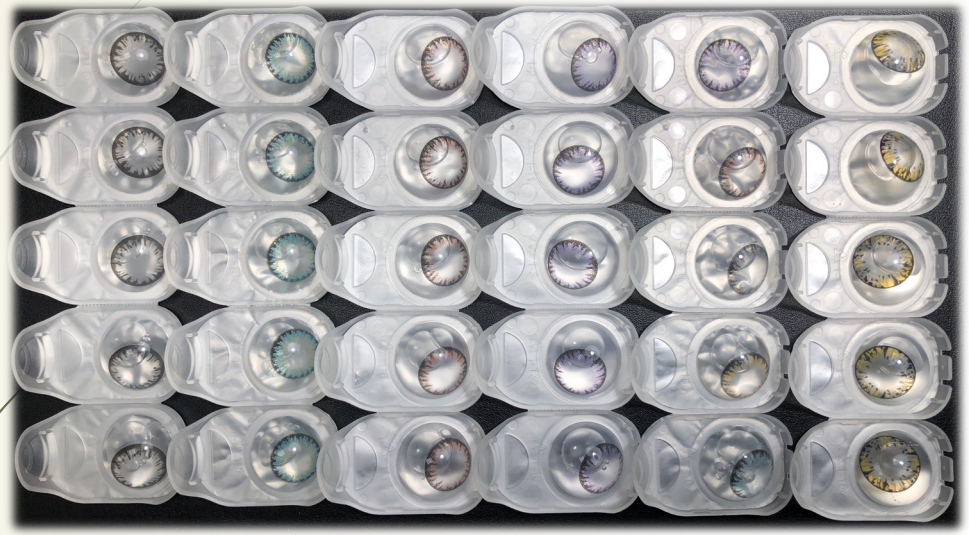
Production Process – Colored lens

PP cup encapsulation machine

sterilization

Optical mold injection | Pattern transfer | Lens molding | Hydration extraction | Lens examination | Lens encapsulation | sterilization | Inspection of finished products | Finished product packaging | Packaging inspection | Product shipment

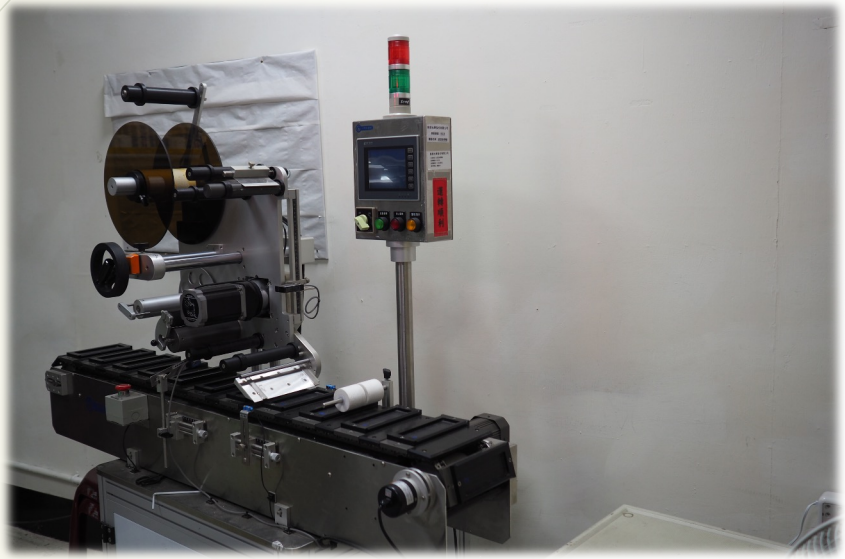
Production Process – Colored lens



Finished lens

Optical mold injection → Pattern transfer → Lens molding → Hydration extraction → Lens examination → Lens encapsulation → sterilization → Inspection of finished products → Finished product packaging → Packaging inspection → Product shipment

Production Process – Colored lens



Label labeling machine

Carton labeling machine

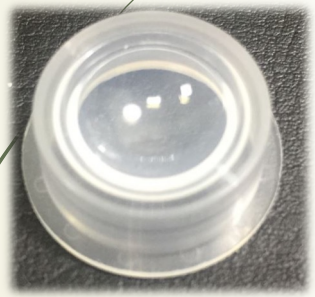
Optical mold injection | Pattern transfer | Lens molding | Hydration extraction | Lens examination | Lens encapsulation | sterilization | Inspection of finished products | Finished product packaging | Packaging inspection | Product shipment

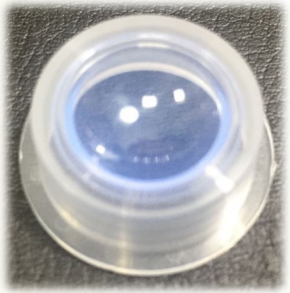
Production Process – Colored lens

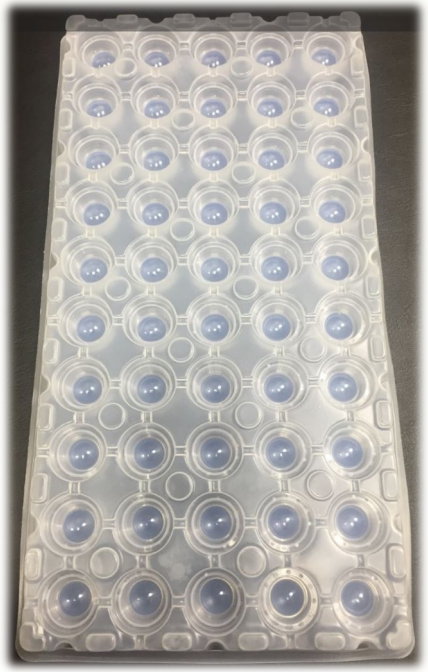
Products (1)

Products (2)

Optical mold injection → Pattern transfer → Lens molding → Hydration extraction → Lens examination → Lens encapsulation → sterilization → Inspection of finished products → Finished product packaging → Packaging inspection → Product shipment







Optical mold injection | Lens molding | Hydration extraction | Lens examination | Lens encapsulation | sterilization | Inspection of finished products | Finished product packaging | Packaging inspection | Product shipment