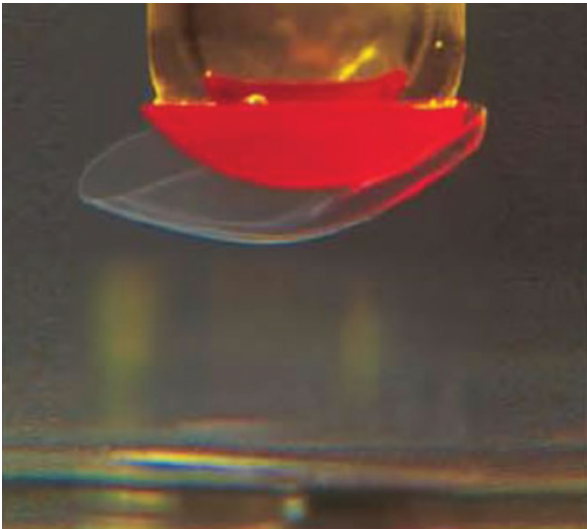


Direct Hydration Technique

Overview

This technique allows for hydration of a lens directly from a mandrel eliminating the use of solvents for deblocking and additional handling of finished lenses in the dry state. Preparation for lens hydration starts at the blocking step. During the blocking process, the finished base curve is blocked on to a precision plastic mandrel using a water-insoluble wax. After front curve lathing and polishing, the plastic mandrel is inserted into the saline solution and as the lenses hydrates, it will expand and detach itself from the wax, eventually falling into the saline solution as shown in the picture below. The lenses are clean and contain neither wax nor solvent residues.



Hydration Tray

The hydration tray is composed of a tray-top with holes cut to allow placement of the plastic mandrel with finished lens placed face down to allow immersion in the saline. The tray top is designed to allow the lens mandrels to be inserted while on a table without the bottom tray. The tray-bottom contains polished wells capable of holding about 20 mL of the appropriate buffered saline. The top or bottom fit is designed to have the dry lens fully immersed in the saline and to cleanly release from the mandrel as it expands. Once the lenses are hydrated, the top is removed and inspection, cleaning and packaging can take place. Hydration trays of various sizes are available from Benz R&D.

