

Showcase

LOW INITIAL COSTS, SUPERIOR-QUALITY PRODUCT

DAYSY is an intelligent ovulation calculator with app support that records individual menstruation cycles and evaluates these for birth control or pregnancy planning.

INITIAL SITUATION

With regard to the newly developed class 1 medical device, all plastic components were to be optimised for the customer in terms of the production process and responsibility taken for the planning and realisation of series production.

DEVELOPMENT

Together with the engineering company responsible for development, the plastic parts were appropriately designed and adapted to suit further processing steps. A total of five moulds were manufactured in China at the facilities of competent local partners and sampled as well as optimised on-site by Mythentec. Mythentec selected the material to suit biocompatibility requirements (USP class VI and EN ISO 10993).

INJECTION MOULDING

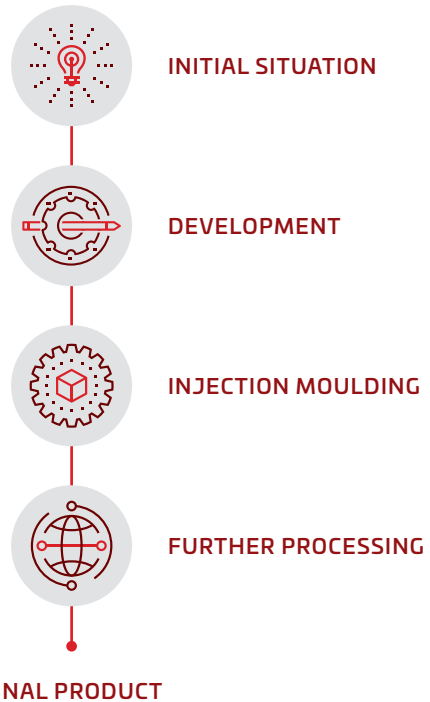
A 1+1 mould for the casing components ensures that superior quality is produced at low initial costs. The upper casing component, which is the core part of the device, is produced by means of two-component injection (ABS-PC/TPE). The associated light conductor was designed to convey the light as desired and, following insertion, not to fall out during further processing steps.

The master computer system ensures batch traceability of raw material and continually archives actual injection moulding cycle parameters on the server.

FURTHER PROCESSING

Under enhanced hygienic conditions, Mythentec employs ultrasonic welding to weld the two cap halves together.

All parts are ordered according to framework agreements. As a consequence, Mythentec can ensure that continuous stocks are available when customer orders are placed at short notice.

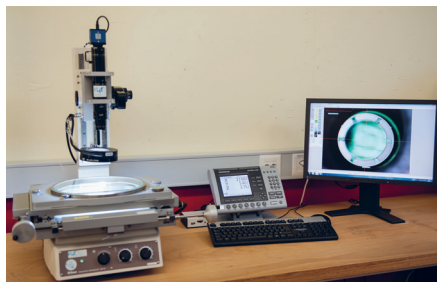


KEY FACTORS

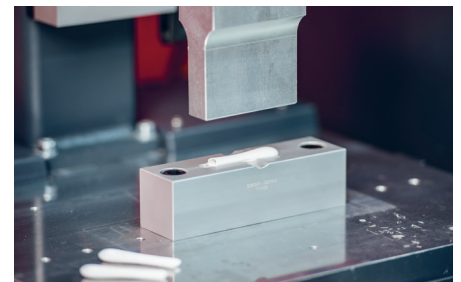
- Component design suitable for plastic
- Low initial costs through mould procurement in China
- Assessment and optimising of moulds in China
- Ultrasonic welding under enhanced hygienic conditions
- Complete batch traceability of raw materials



Moulds from China were sampled and optimised on-site by Mythentec.



The light conductor is measured on the measuring microscope and the visual quality inspected using transmitted light.



Two identical components are welded together using ultrasonic welding to form a protective cap.