



Use case

Medication container in multi-component design

A medication container for a liquid vaccine can use plastic instead of glass thanks to ZAHORANSKY's advanced injection mold tooling and manufacturing equipment. This is accompanied - due to the elimination of the risk of breakage - by advantages in storage and handling in doctors' offices, laboratories, hospitals, as well as in emergency medical services. The special feature: In this special application, sterilization could be completely dispensed, since the product runs directly into aseptic filling after production via injection stretch blow molding - a novelty in this area.

Continuous aseptic production

For the aseptic production of this special product, the injection stretch blow mold and the assembly unit work together in a class 6 clean room. As a result, the vial can be removed directly from the injection molding chamber and pre-assembled with a TPE stopper as a septum and thus sealed without leaving the sterile environment. This ensures that there is no contamination throughout these process steps.

Filling and packaging go hand in hand

In the next step, the pre-assembled container is ejected from the system. A white ring is then put on in the assembly line, which in a later process step acts as a support for an aluminum flanged cap. The output then takes place in a transport unit that brings the container to the bottling plant. There, the medication is injected through the septum with a needle. In the final process step, the red ring is then assembled in a separate machine. The now finished product is then fed to the packaging machine.

The main advantages of this solution are that the main components are manufactured aseptically throughout. This also eliminates work steps that would otherwise be required for glass, such as washing, drying, testing and sterilizing, which leads to significant cost savings.