

GERRESHEIMER

New MultiShell™ plastic parenteral vials

- Biotech derived drugs
- Cytotoxics
- Cell-based therapies

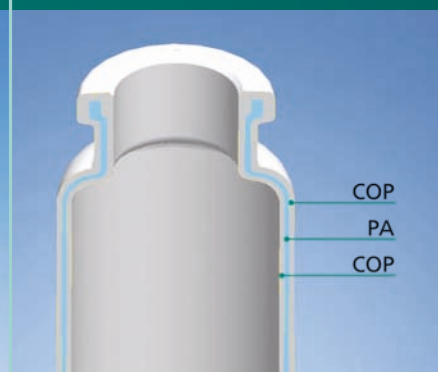
High transparency



ISO design



Multilayer concept



New MultiShell™ plastic parenteral vials



MultiShell™ vials based on COP: Improved barrier properties for sensitive products

The innovative design of the high-performance MultiShell™ vials is based on a combination of the plastic material COP (Cyclic Olefin Polymer) and a polyamide layer which provides the high barrier properties to protect the sensitive drug formulations against oxidation or water vapor. The inertness of COP as the inner drug contact surface and the oxygen barrier of the polyamide layer improve the drug stability over its shelf life. Advantages for the pharma industry are increased efficiency and higher dose accuracy.

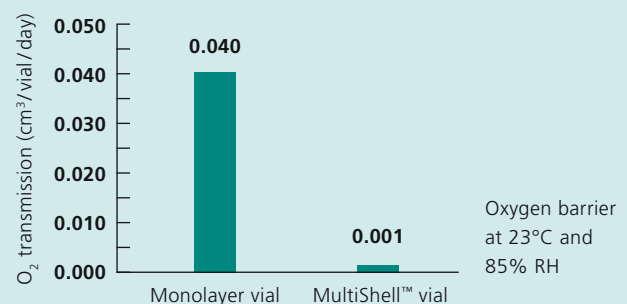
The specific multilayer design with its inner polyamide layer delivers additional integrity assurance even when unusual forces are applied to the vial. This combined crack resistance and integrity performance offer a unique packaging safety feature to manufacturers of toxic or high potency drug solutions.

MAIN CHARACTERISTICS

- Unique oxygen barrier
- Superior break resistance
- Reduced protein adsorption to container surface
- Wide pH range
- Excellent drainability
- No heavy metal ion release
- Available in 2, 5, 10, 15, 50 and 100 ml



OXYGEN BARRIER



- Barrier properties about 30 to 40 times better compared to monolayers
- Measured on 10 ml vial

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