

## PRODUCT UPDATE: SCHOTT's adaptiQ® and Vials DC

**SCHOTT**  
glass made of ideas

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**ADAPTIQ® PORTFOLIO EXPANDED**

SCHOTT has expanded its adaptiQ® portfolio of ready-to-use pharma containers (shown in Figure 1) to meet growing market demand from drug manufacturers. The latest nest format will be able to hold 20R, 25R, or 30R ISO vials when it is released this year, and will add to the existing 2R to 15R formats.

The adaptiQ® concept permits pharma firms to fill different container formats on one production line while minimising burdensome changeover times in between. SCHOTT developed adaptiQ® to be compatible with the industry's filling and finishing equipment, and collectively, industry leaders such as Bausch & Stroebel, Bosch Packaging Technology, Groninger, Optima and Vanrx have tested and verified adaptiQ® on a large number of machine types.

This ready-to-use packaging solution enables pharma companies to react more quickly to new industry trends without building specific manufacturing capabilities. The vials are nested securely, protecting them from scratches caused by vial-to-vial and vial-to-machine contact, and reducing breakage and contamination. As they are already sterilised, pharma companies can



**Figure 1: adaptiQ® concept allows different container formats to be filled on one production line.**

load them directly onto filling lines without expensive and time-consuming washing, sterilising, and depyrogenation.

“Razor-thin margins and regulatory pressure have forced pharmaceutical manufacturers to make smarter packaging choices,” said Christopher Cassidy, Vice-President of Sales and Marketing for SCHOTT's Pharmaceutical Systems Business in North America. “When the 20-30R ISO format comes online, SCHOTT will give pharma companies even more flexibility. The entire portfolio of

ready-to-use vials allows pharma companies to trim costs while boosting efficiency, leading to higher profits.”

**Schott AG**  
Pharmaceutical Systems  
Hattenbergstrasse 10  
55122 Mainz  
Germany

T: +49 6131 66 1589

[www.schott.com/pharma](http://www.schott.com/pharma)

“The question of how effectively buffer systems can be stored in the new bottle was examined more closely. The result: if the respective substances were stored in SCHOTT Vials DC, the vials remained stable and no glass delamination was observed.”

#### SCHOTT VIALS DC NEW SCREENING STUDY

Separately, a new series of studies has once again demonstrated the effectiveness of SCHOTT Vials Delamination Controlled (Vials DC, Figure 2). These pharmaceutical vials have a particularly high chemical durability and are therefore less susceptible to delamination. SCHOTT has had this property confirmed in various storage studies.

First, substances were used that have already caused product recalls due to delamination. In a second series of studies, the question of how effectively buffer systems can be stored in the new bottle was examined more closely. The result: if the respective substances were stored in SCHOTT Vials DC, the vials remained stable and no glass delamination was observed.

The delamination studies were conducted in accordance with USP1660 using two different types of formulations: a KCl 15% solution



Figure 2: SCHOTT Vials DC bring delamination under control.

and a  $\text{Na}_2\text{S}_2\text{O}_3$  10% solution for both of which recalls due to delamination had been announced. Nevertheless, established buffer or formulations that are often used to develop drugs were also tested, for instance ultrapure water, citrate buffer, phosphate buffer, sodium bicarbonate buffer and ethylenediaminetetraacetic acid (EDTA).

Product Manager Florence Buscke said: “Both series of studies clearly show that switching to SCHOTT Vials DC as primary packaging materials significantly reduces the risk for pharmaceutical manufacturers to experience delamination recalls.”

#### AVAILABLE IN MANY SIZES

Thanks to SCHOTT Vials DC, pharmaceutical companies now have an interesting alternative course of action against the phenomenon of delamination, the detachment of flakes from the inner glass surface due to interaction of the formulation with the pharmaceutical vials. SCHOTT Vials DC are based on established hot forming principles without any additional post process steps and can therefore replace the packaging that is already being used with approved drugs without causing expensive re-registration. The vials are available in the ISO sizes 2R to 10R. SCHOTT has also already produced larger sizes to meet individual customer needs, for example, a large-scale 50 ml vial for a biotech company based in the US.

*adaptiQ®* is a registered trademark of SCHOTT AG.



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adaptiQ®

# Let's enter the future of aseptic filling.

By protecting pharma vials securely in a nest during fill & finish as well as lyophilization, we enable pharma companies to achieve maximum flexibility and efficiency.

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