



Research Report
Lyophilization Packing Evaluation Study
Study 950403: Daikyo Crystal Zenith® Vial Comparison

The intent of this study was to measure the performance of the molded Crystal Zenith vials with reconfigured bottoms as compared to molded glass and tubing glass vials. Each container system was assessed for their potential in increasing the rate of sublimation during lyophilization. This study was based on a total of 120 vials in 10 mL and 20 mL sizes using molded glass, tubing glass and Crystal Zenith COP vials. The design of the CZ vials allows them to compete on an efficiency level with glass, the CZ vials continues to demonstrate a minimum of variation in heat transfer characteristics. The CZ vials design shows a heat transfer rate comparing closely to that of tubing vials while retaining the added benefit of heat transfer uniformity.

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