



# Make the fill & finish process up to 50% more efficient with vials with a Velocity® coating

A major problem in the fill & finish process of conventional borosilicate glass vials is the friction caused by glass-to-glass and glass-to-metal contacts. Frictional resistance reduces the transport speed of vials on the filling line and can cause vials to tip, scratch or break. Defective vials can cause production stops or - even more seriously - expensive recalls.

#### The solution:

a friction-reducing and stabilizing outer coating for vials

A new generation of vials from Gerresheimer smoothly eliminates these problems. It features the Velocity® outside coating developed by Corning Inc., which speeds up the fill & finish process by reducing frictional resistance and minimizes defects in the glass.

The fill & finish process becomes up to 50% more efficient with Velocity® vials.

# Increased efficiency and throughput with Velocity® vials

#### Significant reduction of TCO

Velocity® vials speed up the fill & finish process and reduce machine downtime to a minimum. According to various studies, the increase in efficiency is between 20% and 50%.



#### **Seamless integration**

Velocity® vials are a drop-in solution to existing fill & finish lines, no changes are required. This results in an immediate reduction in pharmaceutical production costs.



## No additional regulatory approval

There is no need for an additional post-marketing drug approval process because the internal surface that comes into contact with the drug is not altered. Velocity® coating technology is compliant with European and U.S. health authorities.



#### Less jams on the filling line

Velocity® exterior coating prevents vials from snagging and jamming in turn tables, depyro tunnels, tracks and trays.









### Fewer damaged, scratched and tipped vials

Velocity® coating reduces mechanical stress on vials. Production interruptions are significantly minimized as there are hardly any defective or tipped vials in the filling line. This significantly reduces downtimes and improves the efficiency of fill & finish lines.



#### Improved quality

Less friction also means a reduced particle load and therefore an improved end product quality. Velocity® vials present a visually flawless appearance and meet the highest quality standards.



#### Immediately available

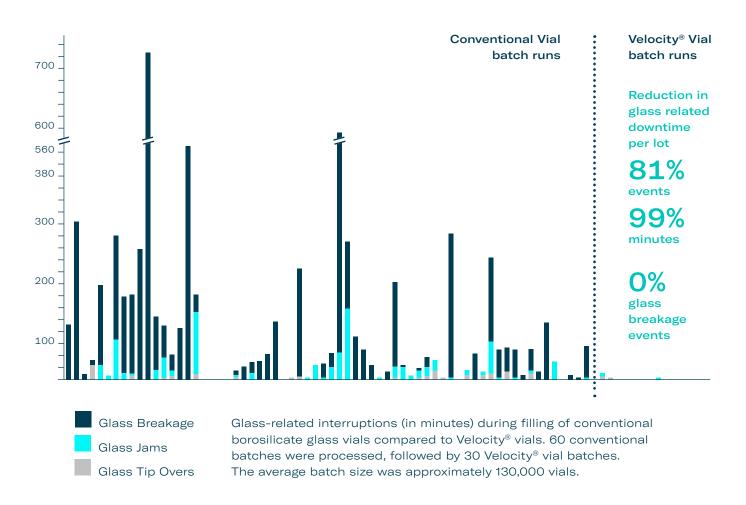
Velocity® vials are available immediately in all major sizes for the European and American markets. We are happy to provide samples so that you can see the benefits for yourself.



#### Supplied in standard packaging

Velocity® vials are supplied in standardized trays and can be seamlessly integrated into existing filling processes.

# Velocity® vials demonstrated significant improvements over conventional vials on customer's filling line



The results were obtained in a case study of Corning Inc. with a CMO filling partner.



#### Our bulk vial range with Velocity® coating

Gerresheimer is the world's leading manufacturer of vials. By adding vials with Velocity® coating to our product portfolio we offer our partners the opportunity to make the fill & finish process more efficient without additional investment in machinery and personnel, thus significantly optimizing TCO.



#### Vial formats and configurations

		ml	<b>▶</b> mm ◀	E V	mm
Size	Color	Volume	Diameter	Height	Crimp finish
2R	flint	4	16	35	13
4R	flint	6	16	45	13
6R	flint	10	22	40	20
8R	flint	11.5	22	45	20
10R	flint	13.5	24	45	20
20R	flint	26	30	55	20

Above you see the most frequently requested formats and configurations.

Other vial formats are available on request. Various configurations are available for bulk packaging.



#### **About Gerresheimer**

Gerresheimer is the global partner for pharmaceutics, biotech, healthcare, and cosmetics with a very broad product range for pharmaceutical and cosmetic packaging solutions and drug delivery systems. The company is an innovative solution provider from concept to delivery of the end product. Gerresheimer achieves its ambitious goals through a high level of innovative strength, industrial competence and concentration on quality and customer focus. In developing innovative and sustainable solutions, Gerresheimer relies on a comprehensive international network with numerous innovation and production centers in Europe, America and Asia. Gerresheimer produces close to its customers worldwide with around 11,000 employees and generated annual revenues in 2021 of around EUR 1.5b. With its products and solutions, Gerresheimer plays an essential role in people's health and well-being.