

Analytical Packaging Support

Drug Container Interaction

Particle Analysis

- size, number, shape, chemical composition

Container Surface Characterization

- Chemical composition, e.g. tungsten quantification, contamination, alkalinity
- Defects, delamination, corrosion
- Surface coating and layer characterization, wetting behavior

Protein Adsorption, Aggregation

- quantification and in-situ adsorption characterization

Silicone Distribution, Free Silicone:

- Trace level quantification total and free silicone
- Silicone layer thickness and distribution

Fracture, Stress, Reliability, Lifetime

- Stress, crack, fracture analysis
- Statistical evaluation of reliability and lifetime

Development Support

Extractables and Leachables

- Testing according to PQRI, OINDP recommendations

Accelerated aging, spiking studies

- Tailored accelerated aging tests to identify critical parameters causing stability issues
- Combination of specific analytical methods, e.g. surface analytics, E&L, spiking studies

Container Closure integrity, System Performance

- Permeability: Oxygen, water vapor
- Leakage: Tip cap leakage, dye ingress, axial compression, piston vacuum
- Sterility
- Functionality: break away/gliding force, tip cap removal, needle pull force, needle penetration
- Drug delivery: dead volume, delivered dose

Glass and polymer compendial testing USP, EP, JP



Your benefit

Specialized analytics

We are equipped with a unique set of state-of-the-art analytical equipment dedicated to the specific needs of glass and polymer packaging characterization

Interpretation skills

Our blend of expertise in materials, products & processes is key to correctly interpret analytical data and draw in-depth conclusions

Comprehensive solutions

We find smart solutions to the most challenging packaging issues and help you avoiding them in the future