Investigation of prefillable syringes by Neutron & Synchrotron imaging

For more than 100 years, the SCHOTT name has represented advanced solutions and services for the global pharmaceutical and biotech industries. With this longstanding expertise, SCHOTT Pharma provides an extensive and scientifically proven product portfolio for the safe storage and administration of injectable drugs to patients all over the world.

Whether made of glass or an advanced polymer, SCHOTT Pharma's prefillable syringes (PFS) not only offer a highly stable, long-term storage solution for drugs, but also a safe and convenient delivery system for patients and clinicians. Since less manual steps are required when using a PFS compared to conventional packaging, the risk of medical errors and infections is considerably reduced. This plays a vital role in the safety of health care professionals and patients.

The applied material analytics of ANAXAM using Neutron radiography and Synchrotron-CT helps SCHOTT Pharma to analyze syringe needles. SCHOTT Pharma strives for high quality in their products and thus it is eager to understand the interaction between needle and rigid needle shield (RNS). The imaging with 2D Neutron radiography and 3D Synchrotron CT helps to further improve the quality of their prefilled syringes.

For this customer project, ANAXAM used ICON and TOMCAT beamlines at the Paul Scherrer Institute.

> “Using the advanced methods offered by ANAXAM enables us to gain new perspectives in the field of imaging techniques. With the help of Neutron radiography and Synchrotron CT, we want to expand our knowledge of making the next generation of drug containment and delivery solutions safer and easier to use.”

Dr. Liliya Vladislavova, Product Engineer,
— SCHOTT Pharma

https://www.anaxam.ch/