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## Real-Time Ageing Tests - Medistri

## **Real-Time Ageing Tests**

Real-Time Ageing Tests are a great way to test the durability of a product. They can also be used to test how quickly an object will deteriorate, or even how long it takes for certain chemicals to break down. It's important that you follow all safety precautions when performing a real-time ageing test.

Real-time ageing tests are a type of accelerated weathering test. They use light sources and other equipment to simulate the effects of natural weathering on your product over time. The purpose of these tests is to determine how well your product will hold up in real-world conditions, so it can be sold with confidence as it its defined quality and usability features.

Real-time ageing tests are a simple and reliable way to test the quality of your products. They can be used in a wide range of industries, including:

- Pharmaceuticals and cosmetics
- Food and beverage
- Paints and coatings
- Rubber and plastics
- Metals processing
- Textiles and clothing

Real-time ageing tests provide an instant result which allows you to make quick decisions about your product's shelf life or suitability for sale. This means that you can avoid selling products that will soon become unusable or dangerous for consumers.

Real-time aging testing is performed by placing the test item on a shelf and allowing it to be exposed to normal storage conditions. The testing provides the best data to demonstrate that packaging performance is maintained over the shelf life specified by the manufacturer. It is recommended to perform real-time aging in parallel with accelerated aging in order to support and verify accelerated aging conclusions.

The common factors which will affect the shelf life include:

- Type and configuration of packaging materials
- Amount of times a package is handled before use
- Storage on open or closed shelves
- Storage area conditions
- Method of sealing

ISO 11607-1 is a standard that specifies requirements and test methods for materials, sterile barrier systems, and packaging systems used in medical devices. Real-time ageing tests can be related to this standard in the following ways:

- 1. The standard requires that packaging materials and systems be tested for their ability to maintain sterility over time. Real-time ageing tests can be used to simulate the effects of long-term storage on packaging materials and systems, and to evaluate their performance over time.
- 2. The standard requires that packaging materials and systems be tested for their ability to withstand various environmental conditions, such as temperature, humidity, and light exposure. Real-time ageing tests can be used to simulate these conditions and to evaluate the performance of packaging materials and systems under these conditions.
- 3. The standard requires that packaging materials and systems be tested for their ability to maintain their physical and mechanical properties over time. Real-time ageing tests can be used to evaluate the changes in these properties over time and to determine the shelf life of packaging materials and systems.

Real-time ageing tests are an essential tool for evaluating the performance of materials and devices used in various industries, including medical devices and aerospace. These tests provide valuable insights into their durability and reliability. By conducting real-time ageing tests, manufacturers can ensure that their products meet regulatory requirements, perform as intended, and have a long shelf life. As technology continues to advance, real-time ageing tests will become even more critical in ensuring the safety and effectiveness of the packages.

Should you fully validate your packaging system or should you simply test one particular characteristic of your packaging, Medistri laboratory is accredited and highly experienced for the most common tests methods provided by the regulatory agencies.

- To learn more about Medistri's Real-Time Ageing Tests, visit on our website at www.medistri.swiss or directly contact our team at contact@medistri.swiss.
- The Medistri Team

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