**5105 General Chapter on Glass Components for Pen-injector**

**1 Scope**

This general chapter specifies the classification and requirements for glass components for pen-injector.

This general chapter is applicable to glass components for pen-injector containing injections.

**2 Classification**

Glass components for pen-injector are normally made of borosilicate glass, and can be classified as glass barrels and glass beads.

**3 Requirements**

The quality of glass components for pen-injector shall comply with General Chapter on Glass Containers for Pharmaceutical Packaging (General Chapter 5100) and meet the following requirements.

**3.1 Appearance**

It is used to control the appearance quality of glass components for pen-injector. Take appropriate amount of glass barrel or glass beads, carry out visual examination by observing under natural light. The appearance quality shall conform to the enterprise specification or quality agreement.

**3.2 Internal stress (applicable to glass barrel)**

It is used to control the residual internal stress of glass barrels after annealing and reduce the influence of internal stress on the mechanical strength of the products. According to the Determination of Internal Stress for Glass Containers (General Chapter 4003), the optical path difference caused by the maximum permanent stress after annealing shall not exceed 40 nm/mm.

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