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**Sample preparation for testing aging degree of silk textile in
museum collections**

馆藏丝织品老化程度测试样品制备

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed by the State Administration of Cultural Heritage of the People's Republic of China.

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Sample preparation for testing the aging degree of silk fabrics in museum collections

1 Scope

This document specifies the requirements for sampling, processing, preparation, and sample information registration for testing the degree of aging of silk textiles in collections.

This document is applicable to amino acid analysis, scanning electron microscopy, thermogravimetric analysis, Fourier transform infrared spectroscopy, etc.

Sample preparation for external spectroscopy and X-ray powder diffraction test methods.

2 Normative references

GB/T 6529-2008

GB/T 13464-2008

GB/T 23863-2009

GB/T 32016-2015

3 Terms and definitions

The terms and definitions defined in GB/T 6529-2008 and the following apply to this document.

3.1 Aging degree of silk textile

The level of changes in microstructure and macroscopic properties of damaged silk fabrics in museum collections compared to fresh silk.

4.1 Sampling plan

The preparation of samples for testing the aging degree of silk fabrics in museums (hereinafter referred to as "samples", including samples to be tested and reference samples1)) should be the same as that of the cultural relics.

The responsible units shall formulate a sampling plan based on the sampling purpose after consultation. The relevant requirements of the sampling plan are as follows.

The impact of the materials and processes used in previous protection and restoration on the test should be fully considered; a) Determine the sampling location, number of samples, and amount of samples according to the needs and the characteristics of the cultural relics, such as grade, preservation status, disease, and organizational structure.

(such as sample size, sample area and sample mass), sampling method, sample packaging and preservation method, etc.;

b) Priority should be given to sampling from the remaining pieces (fragments) or places that have little impact on the value of cultural relics (such as patterns, designs, etc.); c) Determine the disposal method of the remaining samples after the sample testing (such as returning them to the responsible unit of the cultural relics, retaining them, etc.). d)

4.2 Sampling process

The sampling process is carried out according to the sampling plan.

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1) Reference samples are new samples used for analysis and comparison, which are prepared, manufactured and tested in the same way as the samples to be tested.