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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 43127-2023

**General requirements for structural components and
assemblies of space products**

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1. Structure and Drafting Rules of Standardization Documents"

Drafting.

This document was drafted with reference to ISO 10786.2011 "Aerospace System Structural Components and Assemblies", and the degree of consistency is not equivalent.

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies the general requirements, verification of requirements, special structural parts requirements, documentation requirements and data for aerospace product structural parts and assemblies.

upon exchange request.

This document applies to aerospace product structural parts and assemblies (except adaptive structures, engines, thermal protection systems, and ground equipment).

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations

For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to

this document.

GB/T 2900.99 Credibility of electrical terminology

GB/T 32303 Requirements for fracture and damage control of aerospace structures

GB/T 38036 Structural stress analysis requirements for aerospace products

GB/T 40541 Structural design requirements for aerospace metal pressure vessels

3 Terms and definitions

The following terms and definitions as defined in GB/T 32303, GB/T 38036, GB/T 40541 and GB/T 2900.99 apply to this document.

document.

3.1

acceptance test

Prescribed testing performed on flight products to determine that materials, manufacturing processes, and workmanship meet requirements and that the product is suitable for its intended use

Require.

3.2

adaptive structures

Autonomous architectural systems containing sensors, processors and actuators.

Note. Able to adapt to changing environmental conditions, thereby improving structural system performance, including safety, stability, vibration damping, noise suppression, and aerodynamics

performance, pointing accuracy, load redistribution, damage response, structural integrity, etc.

3.3

component assembly

A functional entity composed of parts and components.

3.4

Buckling

Structural failure modes in which small increases in load can lead to sudden instability or harmful deformation of the structure.

Note. Such as the collapse of slender beams, columns, struts and thin-walled shells.