

ICS 83.160.20

CCS G 41



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

GB 9745-2025

Replacing GB 9745-2009

Aircraft tyres

航空轮胎

Issued on: December 31, 2025

Implemented on: January 1, 2027

**Issued by: State Administration for Market Regulation;
Standardization Administration of China**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and definitions
- 4 Requirements
 - 4.2 Peripheral dimensions
 - 4.4 Dynamic performance
 - 4.8 Static balance difference
- 5 Test methods...
- 6 Marking, storage and use...

1 Scope

GB 9745-2025 is the Chinese national standard on aircraft tyres, in the field of rubber and plastic industries. It carries no /T suffix, which in the Chinese system means compliance is mandatory: a product or a practice within its scope has to meet it to be lawfully made, sold or carried out in China. It was issued on 31 December 2025 by the State Administration for Market Regulation; Standardization Administration of China, and takes effect on 1 January 2027. Classification: ICS 83.160.20, CCS G 41. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This document specifies the requirements, test methods, marking, storage and use, recycling, and comprehensive utilization of aircraft tyres. This document applies to new civil aircraft tyres. NOTE. New aircraft tyres refer to aircraft tyres that have neither been used nor retreaded.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

GB/T 6326 Tyre - Vocabulary

GB/T 9746 Series of aircraft tyres

GB/T 9747 Test methods for aircraft tyres

GB/T 13652 Surface quality of aircraft tires

GB/T 22037 Bead fit test method for tube aircraft tyre - Electrical

GB/T 22039 The laser digital non-destructive inspection method for aircraft tyres

HG/T 2195 Service and maintenance of aircraft tyre

3 Terms and definitions

For the purpose of this document, the terms and definitions defined in GB/T 6326 apply.

4 Requirements

4.1 Main parameters of tyres For those listed within the parameter ranges specified in GB/T 9746, the tyre specifications, ply ratings, ratings, and rims shall comply with the provisions of GB/T 9746; for those not listed within the parameter ranges specified in GB/T 9746, the tyre specifications, ply ratings, ratings, and rims shall comply with the manufacturer's stated values. When tyres are used for helicopters, the rated load can be increased to

1.50 times, and the rated inflation pressure can be increased accordingly to

1.80 times without any additional qualification tests.

4.2 Peripheral dimensions

4.2.1 Diagonal tyres The peripheral dimensions of tyres shall comply with the provisions of GB/T 9746 or the manufacturer's stated values. When the tyres are used for helicopters, the peripheral dimensions of the tyres may be increased by 4 %.

4.2.2 Radial tyres After completing 50 dynamic performance takeoff tests, the peripheral dimensions of tyres shall comply with the provisions of GB/T 9746 or the manufacturer's stated values. When the tyres are used for helicopters, the peripheral dimensions of the tyres may be increased by 4 %.

4.3 Static loaded radius The static loaded radius of tyres shall comply with the provisions of GB/T 9746.

4.4 Dynamic performance

4.4.1 Low-speed tyres The dynamic performance of low-speed tyres shall meet one of the following requirements.

a) Low-speed tyres shall pass 200 landing tests, including 100 low-speed landing tests and 100 high-speed landing tests;

b) Low-speed tyres shall pass the dynamic performance tests of high-speed tyres (4.4.2).

4.4.2 High-speed tyres High-speed tyres shall pass 61 takeoff and taxiing dynamic performance tests, including 50 takeoff tests at rated load, 8 taxis at rated load, 2 taxis at 1.2 times rated load, and 1 overload takeoff at

1.5 times rated load. When conducting dynamic performance tests, if the overload takeoff test is scheduled last in the dynamic performance test suite, the tyre tread does not need to remain intact after the test; if the overload takeoff test is not scheduled last, the tyre tread shall not show any visible damage other than normal tread wear after the test.

4.4.3 Air tightness check Within 24 h of completing the dynamic performance tests, the tyre's inflation pressure loss shall be less than 10 % of the initial inflation pressure.

4.5 Overpressure performance When inflated to at least 4 times the rated inflation pressure, the tyre shall remain inflated for at least 3 s without bursting, blisters, delamination, or steel wires or cords break.

4.6 Air tightness performance of tubeless tyres After inflating a tyre to its rated inflation pressure and allowing it to stand at ambient temperature for at least 12 h, then adjusting it to the rated inflation pressure and allowing it to stand at ambient temperature for at least 24 h, the rate of pressure drop shall not exceed 5 % of the rated inflation pressure. During inflation pressure measurement, the ambient temperature deviation shall not exceed ± 3 °C.

4.7 Bead fit pressure of tubeless tyres The bead fit pressure values for tube tyres with different rated inflation pressures shall comply with the provisions in Table 1.