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

GB/T 43564-2023

**Track and field with synthetic surfaces for primary and middle
schools**

中小学合成材料面层田径场地

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Foreword

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This document is a supporting standard for the mandatory national standard GB

36246-2018 "Synthetic Material Surface Sports Venues for Primary and Secondary Schools": It is aimed at primary and secondary schools: Learn the design principles, site foundation, paving, appearance, marking lines, flatness, slope, thickness, physical and mechanical properties of synthetic material surface track and field venues Specification requirements are put forward for performance, aging resistance, etc: These requirements are essential and crucial to effectively guarantee the performance of sports venues: It is conducive to further standardizing the quality of track and field venues in primary and secondary schools and helping to comprehensively improve school running conditions: In order to realize the goal of sports intelligence and sports Provide technical support to strengthen the overall quality and cultivate socialist builders and successors with comprehensive development of moral, intellectual, physical, artistic and labor development: Primary and secondary school synthetic material surface track and field venues

1 Scope

China's national standard for synthetic track and field surfaces at primary and middle schools. The standard exists because of a public health episode rather than a sporting one. From about 2015 a series of schools across China reported children falling ill with headaches, nosebleeds and rashes after new synthetic running tracks were laid, and testing found volatile organic compounds and other contaminants at levels far above anything acceptable - traced to waste rubber, industrial solvents and unregulated adhesives used by contractors competing on price. The response was a set of standards for school sports surfaces with limits far stricter than the general product standards, covering the raw materials, the emissions from the finished surface, and the site testing after installation. That is what distinguishes this document from an ordinary sports surface specification: the performance requirements matter, and the chemistry is why it was written.

This document gives the classification of synthetic surface track and field venues for primary and secondary schools, stipulates the requirements, sampling, inspection rules and maintenance, and describes corresponding test methods: This document is applicable to the design, paving, and installation of outdoor cast-in-place and prefabricated surface track and field venues for newly built, renovated, and expanded primary and secondary schools: Acceptance and maintenance:

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 3516 Determination of rubber solvent extractables GB/T 9056 Metal ruler

GB/T 14833 Synthetic sports ground floor

GB/T 15905-1995 Humid heat aging test method for vulcanized rubber

GB/T 16422:2-2022 Plastic laboratory light source exposure test methods Part 2: Xenon arc lamp GB/T 22517:

6 Sports venue usage requirements and inspection methods Part 6: Track and field venues

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HJ644 Determination of volatile organic compounds in ambient air Adsorption tube sampling-thermal desorption/gas chromatography-mass spectrometry JGJ146 Construction site environment and health standards for construction projects QB/T 2443 steel tape measure

ISO 16000-30:2014 Indoor air Part 30: Sensory testing of indoor air

3 Terms and definitions

The terms and definitions defined in GB 36246 and the following apply to this document:

3:1 synthetic surface A layer of polymer synthetic material paved on a base layer such as asphalt concrete or cement concrete:

Note: The synthetic surface layer mainly includes cast-in-place surface layer, prefabricated surface layer and artificial grass surface layer: [Source: GB 36246-2018, 3:1, with modifications] 3:2 in-situcastingsurface The surface layer of the pavement is poured on-site using polymer raw materials and other raw materials:

Note: The cast-in-place surface layer is divided into a permeable surface layer and a non-permeable surface layer: The non-permeable surface layer is further divided into a composite surface layer, a mixed surface layer and a fully plastic surface layer: [Source: GB 36246-2018, 3:2, with modifications]