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

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Green product assessment - Tyres

绿色产品评价 轮胎

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1 Scope

China's national standard for assessing tyres as green products. It specifies the terms and definitions, the product classification, the assessment requirements and the methods. A tyre's environmental profile is dominated by something counterintuitive: not its manufacture, and not its disposal, but its rolling resistance during use. A tyre absorbs energy as it deforms under load, and that energy comes from the fuel; rolling resistance accounts for something like a fifth of a car's fuel consumption, so the difference between a good tyre and a poor one over its life is several times the energy embodied in making it. That is why the assessment weights rolling resistance heavily, alongside the restricted substances - the high aromatic extender oils - the noise the tyre radiates, and the recyclability of the carcass. It also has to hold wet grip, because rolling resistance and wet grip trade against each other and a green tyre that cannot stop is not one.

This Standard specifies product classification, evaluation requirements and evaluation judgment in tyre green product assessment. This Standard is applicable to the green product assessment of passenger car tyres and truck tyres.

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, Auto immediate

GB 9743, Passenger car tyres GB 9744, Truck tyres

GB/T 9874, Rubber - Determination of lead content by atomic absorption spectrometry

GB/T 19001, Quality management systems - Requirements

GB/T 21910, Method for measuring relative wet grip performance of passenger car tyres

GB/T 22036, Coast-by methods for measurement of tyre-to-road sound emission

GB/T 23331, Energy management system requirements and guidelines

GB/T 24001, Environmental management systems - Requirements with guidance for use

GB/T 26125, Electrical and electronic products - Determination of six regulated substances (lead, mercury, cadmium, hexavalent chromium, polybrominated biphenyls, polybrominated diphenyl ethers)

GB 27632, Emission standard of pollutants for rubber products industry

GB/T 29040, Test methods of rolling resistance for motor vehicle tyres - Single point test and correlation of measurement results

GB 29449, The norm of energy consumption for per unit product of tyre

GB/T 29607, Rubber product - Determination of cadmium content - Atomic absorption spectrometry

3 Terms and definitions

For the purposes of this document, the terms and definitions defined in GB/T 6326 and GB/T 33761 as well as the followings apply.

3.1 green product in the whole life cycle process, the products that meet the requirements of environmental protection, are harmless to the ecological environment and human health or have little harm, consume less resources and energy, and are of high quality [Source: GB/T 33761-2017, 3.1]

3.2 passenger car tyre the tyres designed primarily for use in passenger cars [Source: GB/T 6326-2014, 3.3.1]

3.3 truck tyre the tyres designed primarily for use on commercial vehicles and their trailers [Source: GB/T 6326-2014, 3.3.2]

4 Product classification

Tyre products applicable to this document are classified according to Table 1. When determining the product classification, the category to which the product belongs shall be determined according to the primary level and the secondary level.

5.1.1 Basic requirements for production enterprises

5.1.1.1 Tyre production enterprises shall have no major safety accidents and environmental

pollution accidents in the past three years.

5.1.1.2 The discharge of water pollutants and air pollutants by tyre manufacturing enterprises shall comply with the provisions of GB 27632.

5.1.1.3 The production enterprises shall establish and operate environmental management system, quality management system, occupational health and safety management system and energy management system in accordance with GB/T 24001, GB/T 19001, GB/T 45001 and GB/T 23331, respectively.

5.1.1.4 Tyre production enterprises shall adopt advanced technologies encouraged by the state.

5.1.2 Product basic requirements

5.1.2.1 Passenger car tyres shall meet the requirements of GB 9743. Truck tyres shall meet the requirements of GB 9744.