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

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Steel slag for wearing course asphalt pavement

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Foreword

This standard Annex A, Annex B normative appendix. The standard proposed by China Iron and Steel Association. This standard is under the jurisdiction of the National Steel Standardization Technical Committee. This standard is drafted by: Shougang Resources Comprehensive Utilization Technology Development Company, Metallurgical Industry Information Standards Institute. Participated in the drafting of this standard. Beijing Municipal Engineering Research Institute, Hunan Valin Xiangtan Iron & Steel Co., Maanshan Iron & Steel Company Limited Division, Baosteel Development Company Limited new material. The main drafters of this standard. Meng Libin, Cui Li, Wu Bing, in the Charter, Li Chengyi, red, Chou Jinhui. Wear-resistant asphalt pavement with slag

1 Scope

China's national standard for the steel slag used as aggregate in the wearing course of asphalt pavement. It specifies the technical requirements, the test methods, the inspection rules and the marking, transport and storage of steel slag for this use. Steel slag is a by-product produced in enormous quantity and disposed of at a cost, and using it as road aggregate solves two problems at once - but it is used here for a positive reason as well, which is that it makes a better wearing surface than natural aggregate. The slag is hard, angular and rough-textured, with a high polished stone value: it resists the polishing under traffic that turns a natural limestone aggregate slippery, so a surfacing made with it retains its skid resistance far longer. It also bonds well with bitumen, being basic where most natural aggregates are acidic, which improves the resistance to stripping. Against that stands the one property that has to be controlled absolutely: free lime and free magnesia. Both hydrate slowly and expand as they do, and expansion in a bound pavement layer disrupts it - a road built with unaged slag heaves and cracks months after it was laid. The remedy is ageing, by weathering or accelerated treatment, until the expansive phases have hydrated before the material is used, and the volume stability test is what demonstrates it. So that test is the central requirement of the standard, alongside the properties any road aggregate must have: the particle size and grading, the crushing value and the Los Angeles abrasion, the polished stone value, the shape and flakiness, the water absorption and the

adhesion to bitumen. Issued on 15 December 2009 and in force since 1 July 2010.

This standard specifies the wear-resistant asphalt pavement with slag of terms and definitions, specifications, technical requirements, test methods, inspection rules, storage, transport And quality certificate. This standard applies to have a higher abrasion resistance requirements of the asphalt pavement in road projects.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 6003.1 Test sieves of metal wire cloth

GB 6566 building materials radionuclide limits

GB/T 8170 repair value expressed about the rules and limit values and judgment Road soil test procedures JTGE40 JTGE42-2005 aggregate testing procedures for highway engineering JTGF40 asphalt pavement construction specifications JTJ052-2000 Highway Engineering asphalt and asphalt testing procedures YB/T 140 chemical analysis of cement by slag YB/T 804 steel slag processing and use terminology

3 Terms and Definitions

YB/T 804 as well as established the following terms and definitions apply to this standard.

3.1 Under specified test conditions, the volume change after flooding slag.

4 Specification

Slag name should comply with the specifications of JTGF40. Steel slag coarse aggregate particle size should be in accordance with Table 1, the steel slag fine aggregate particle size should be in accordance with Table 2. Table 1 steel slag coarse aggregate particle size specification Specification Name NMAS mm By following mesh (mm) mass fraction /% 19 13.2 9.5 4.75 2.36

0.6 S10 10 ~ 15 100 90 ~ 100 0 ~ 15 0 ~ 5 - - S11 5 ~ 15 100 90 ~ 100 40 ~ 70 0 ~ 15 0 ~ 5 - S12 5 ~ 10 - 100 90 ~ 100 0 ~ 15 0 ~ 5 - S13 3 ~ 10 - 100 90 ~ 100 40 ~ 70 0 ~ 20 0 ~ 5 S14 3 ~ 5 - - 100 90 ~ 100 0 ~ 15 0 ~ 3 * * *