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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 494-2025

Replacing GB/T 494-2010

Asphalt used in roofing

建筑石油沥青

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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 replaces GB/T 494-2010 "Building Petroleum Asphalt". Compared with GB/T 494-2010, it has undergone structural adjustments and editorial changes. Aside from the changes, the main technical changes are as follows:

a) The scope has been changed (see Chapter 1, Chapter 1 of the.2010 edition);

b) Added terms and definitions (see Chapter 3);

c) The product category definition has been changed (see Chapter 4, Chapter 3 of the.2010 edition);

d) The solvent requirement for the technical specification "solubility" has been removed (see Table 1 in the.2010 edition);

e) The description and requirements for the technical indicator "Change in mass after evaporation" have been revised (see Table 1, Table 1 in the.2010 edition);

f) The test method for the technical specification "flash point (open cup method)" has been changed (see Table 1, Table 1 in the.2010 edition);

g) The technical indicator "isoviscous temperature" has been added (see Table 1);

h) Sampling was removed (see Chapter 6 of the.2010 edition);

i) Added inspection rules (see Chapter 6);

j) A method for determining the isoviscosity temperature of asphalt has been added (see Appendix A). Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents. This document was proposed and is under the jurisdiction of the National Technical Committee on Standardization of Petroleum Products and Lubricants (SAC/TC280). This document was drafted by: China University of Petroleum (East China), CNPC Fuel Oil Co., Ltd.

Research Institute, and Foshan Jiaotong University of Science and Technology (Guangdong) Materials. Materials Co., Ltd., CNOOC Chemical and New Materials Research Institute (Beijing) Co., Ltd., Beijing Oriental Yuhong Waterproof Technology Co., Ltd. Keshun Waterproof Technology Co., Ltd. The main drafters of this document are. Li Jun, Guo Ning, Huang Hongming, Qian Jun, Liu Yanjun, Liu Jinjing, Wang Xianjun, Huang Xiaoqiao, Zhang Xiaoying, Li Hao, and Li Yuhuan. Wang Gang. The release history of this document and the document it replaces is as follows:

---First published in 1965 as GB/T 494-1965, revised for the first time in 1975, revised for the second time in 1985, and revised for the third time in.1998. This was the fourth revision in.2010.

---This is the fifth revision. Construction petroleum asphalt Warning

1 Scope

GB/T 494-2025 is the Chinese national standard covering building grade bitumen - the penetration and softening point grades, the ductility, the flash point, the loss on heating and the change in penetration after it, and the solubility, on the material that goes into roofing felt and waterproofing. Issued on 5 October 2025, it has been in force since 1 May 2026, replacing GB/T 494-2010.

This document specifies the product classification, technical requirements, and testing procedures for building petroleum asphalt produced from crude oil through distillation or other processes. Inspection methods, inspection rules, and requirements for packaging, marking, storage, transportation, and delivery acceptance. This document applies to adhesives for building roofs and underground waterproofing, as well as impregnating agents for coatings, anti-corrosion materials, and waterproof membrane bases. product.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 267 Determination of flash point and fire point of petroleum products (open cup method)

GB/T 3536 Determination of flash point and ignition point of petroleum products - Cleveland open cup method

GB/T 4507 Determination of softening point of bitumen - Ring and ball method

GB/T 4508 Determination of ductility of bitumen

GB/T 4509 Determination of Penetration of Asphalt

GB/T 11147 Asphalt Sampling Method

GB/T 11148 Determination of Solubility of Petroleum Asphalt

GB/T 11964 Determination of Evaporation Loss of Petroleum Asphalt NB/SH/T 0164 Rules for Packaging, Storage, Transportation and Delivery Acceptance of Petroleum and Related Products NB/SH/T 0739 Asphalt High Temperature Viscosity Determination Method - Rotational Viscometer Method

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Penetration ratio The ratio of the penetration at 25°C of the asphalt sample after evaporation loss to that of the original sample was determined.

3.2 Equiviscous temperature (EVT) The temperature at which asphalt reaches a specified viscosity.

Note. The isoviscosity temperature is obtained by fitting the viscosity-temperature curve formula.