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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 11148-2025

Replacing GB/T 11148-2008

Test method for solubility of asphalt

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Table of Contents

1.Scope 1
2 Normative References 1
3.Terms and Definitions 1
4.Method Overview and Applications 1
5.Instruments and Materials 1
6.Experimental Preparation 3
7.Experimental Procedure 3
8.Calculate 3
9 Precision 4
10 Reports 4

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 11148-2008 "Determination of Solubility of Petroleum Asphalt". Compared with GB/T 11148-2008, except for structural adjustments... Aside from integration and editorial changes, the main technical changes are as follows:

a) The scope of application has been changed (see Chapter 1, Chapter 1 of the.2008 edition);

b) The dimensions of the filter device have been changed (see 5.2,

5.1 in the.2008 edition), and a requirement of "approximately 50 mL in volume" has been added (see 5.2);

c) The pore size requirements for glass fiber filter paper have been changed (see 5.3,

5.6 in the.2008 edition);

d) The chloroform solvent has been removed (see

5.13 in the.2008 edition);

e) Added propane bromide solvent (see 5.15);

f) The sample control heating temperature has been changed (see 6.3,

6.2 in the.2008 edition);

g) The calculation formula has been changed (see Chapter 8,

8.1 of the.2008 edition);

1 Scope

GB/T 11148-2025 is the Chinese national standard on test method for solubility of asphalt, in the field of petroleum and related technologies. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 5 October 2025 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 May 2026. Classification: ICS 75.140, CCS E43. 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 describes a method for determining the solubility of bitumen materials. This document applies to the determination of the solubility of petroleum asphalt, polymer-modified asphalt, or diluted asphalt and emulsified asphalt residues. Natural asphalt, The solubility determination of rubber asphalt and other asphalts should be performed in accordance with the reference procedure.

Note. Choose either the trichloroethylene method or the n-propane bromide method according to the experimental requirements. The trichloroethylene method shall be used in the arbitration test.

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 11147 Asphalt Sampling Method

GB/T 11415-1989 Pore size, classification and grade of laboratory sintered (porous) filters

3 Terms and Definitions

This document does not contain any terms or definitions that need to be defined.

4 Method Overview and Applications

4.1 The sample is dissolved in a solvent, filtered using filter material, and the insoluble matter is washed, dried, and weighed to calculate the solubility.

4.2 The soluble content in asphalt reflects the content of its effective binder components.

5 Instruments and Materials

5.1 Filtration Device. A Gooch crucible filtration device can be used, as shown in Figure 1, including a Gooch crucible, glass connector, suction flask, filter media, and... Composition of a vacuum device.