

भारतीय मानक

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भाग 4 दाब शीर्ष परीक्षण

*Indian Standard*

BITUMEN BASED FELTS — METHODS  
OF TEST

PART 4 PRESSURE HEAD TEST

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BUREAU OF INDIAN STANDARDS  
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NEW DELHI 110002

## FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Water-proofing and Damp-proofing Sectional Committee had been approved by the Civil Engineering Division Council.

Bitumen felts may be of different types depending upon the raw material used and their construction. IS 1322 : 1993 'Specification for bitumen felts for water proofing and damp-proofing (*fourth revision*)' and IS 7193 : 1993 'Specification for glass fibre base coal tar pitch and bitumen felts (*first revision*)', covers bitumen felts of hessian based and glass fibre base respectively. The above standards require amongst other requirements, detailed testing of these products. Various methods of test relating to each product for determination of physical properties have been included in the separate standards. All types of felts have to satisfy some common essential physical requirements for which methods of test are same. A series of standards covering methods of test have therefore been formulated to cover the determination of various physical requirements of bitumen felt. This standard covers pressure head test. Other parts of the standard are as follows:

- Part 1 Breaking strength test
- Part 2 Pliability test
- Part 3 Storage sticking test
- Part 5 Heat resistance test
- Part 6 Water absorption test
- Part 7 Determination of binder content

The composition of the technical committee responsible for the formulation of this standard is given in Annex A.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

# Indian Standard

## BITUMEN BASED FELTS — METHODS OF TEST

### PART 4 PRESSURE HEAD TEST

#### 1 SCOPE

This standard ( Part 4 ) covers the method for determination of any leakage under a constant pressure head of water.

#### 2 REFERENCE

The Indian Standard IS 4911 : 1986 'Glossary of terms relating to bituminous water-proofing and damp-proofing of building' is necessary adjunct to this standard.

#### 3 TERMINOLOGY

3.0 For the purpose of this standard, the definitions given in IS 4911 : 1986, shall apply.

#### 4 APPARATUS

4.1 An arrangement to put a circular test piece of dia 200 mm under a constant pressure head of water of 300 mm ( for a typical arrangement of the apparatus, see Fig. 1 ).

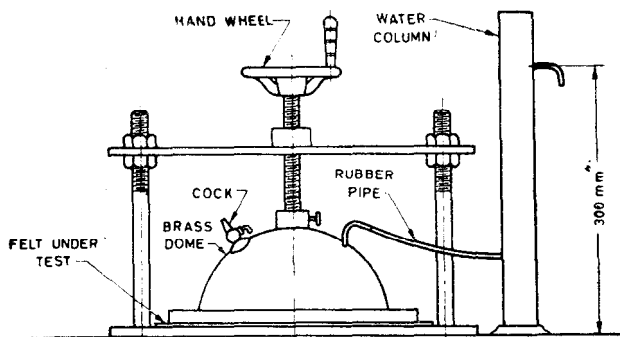


FIG. 1 ARRANGEMENT FOR PRESSURE HEAD TEST

4.2 An arrangement to condition the sample at a temperature of 5°C and  $65 \pm 2^\circ\text{C}$ .

#### 5 PROCEDURE

##### 5.1 Preparation of Test Pieces

Six test pieces, at least 200 mm in diameter, shall be cut from each of the samples selected in such a manner that when the test piece is clamped down, a part of it is always extending beyond the clamping plate.

##### 5.2 Conditioning

- a) Three test pieces shall be conditioned for 3 h at  $65 \pm 2^\circ\text{C}$ .
- b) Three test pieces shall be conditioned at 5°C or lower temperature as per requirement for 3 h and immediately tested.

##### 5.3 Procedure

Test pieces conditioned as explained in 5.2 shall be placed one by one as shown in Fig. 1 and shall be subjected to constant pressure head of 300 mm high and checked periodically for any leakage for one hour.

#### 6 REPORTING

Reporting shall include the following:

- a) Date of testing,
- b) Type of conditioning, and
- c) Observation.

**ANNEX A**  
**( Foreword )**

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**Water-Proofing and Damp-Proofing Sectional Committee, CED 41**

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