

(PREVIEW)
**COMPENDIUM
OF INDIAN
STANDARDS
ON SOIL
ENGINEERING
PART 1**

Indian Standard

IS : 2809-1972

**Glossary of Terms and Symbols Relating to Soil Engineering
and soil Dynamics**

1. SCOPE

1.1 This standard covers definitions of terms relating to soil engineering. The symbols that are used to represent some of the terms are also given.

IS : 1498 – 1970
(Reaffirmed 1987)

CLASSIFICATION AND IDENTIFICATION OF SOILS FOR GENERAL ENGINEERING PURPOSES

(First Revision)

1. SCOPE

1.1 This standard covers a system for classification and identification of soils for general engineering purposes. The information given in this standard should be considered for guidance only for treating the soil for engineering purposes.

Indian Standard

**METHODS OF TEST FOR SOILS
PART 1 PREPARATION OF DRY SOIL SAMPLES FOR VARIOUS
TESTS**

(Second Revision)
(Incorporating Amendment No. 1)

1. SCOPE

1.1 This standard (Part I) covers the method of preparation of dry samples from the bulk soil sample received from the field for various laboratory tests.

Indian Standard

METHODS OF TEST FOR SOILS
PART 2 DETERMINATION OF WATER CONTENT
(Second Revision)

SECTION 1 OVEN-DRYING METHOD (STANDARD METHOD)

1. SCOPE

1.1 This method covers the determination of water content of soils expressed as a percentage of the oven-dry weight.

SECTION 2 SAND-BATH METHOD (SUBSIDIARY METHOD)

8. SCOPE

8.1 This method covers the determination of the water content of a soil as a percentage of its dry mass. It is intended as rapid alternative to the method given in Section I but is less accurate and more suitable as a field test. The method shall not be used if it is suspected that the soil contains a large proportion of gypsum, calcareous matter or organic matter.

Indian Standard

METHODS OF TEST FOR SOILS
PART 3 DETERMINATION OF SPECIFIC GRAVITY
Section 1 Fine Grained Soils

(First Revision)

1. SCOPE

1.1 This standard (Part 3/Sec 1) lays down the methods of test for the determination of the specific gravity of soil particle of fine grained soils (*see* Note).

NOTE — The method may also be used for medium and coarse grained soils if the coarse particles are grained to pass 4.75 mm IS sieve before using

Indian Standard

**METHODS OF TEST FOR SOILS
PART 4 GRAIN SIZE ANALYSIS**

(Second Revision)

1. SCOPE

1.1 This standard (Part 4) covers the method for the quantitative determination of grain size distribution in soils.

1.1.1 Two methods are given for finding the distribution of grain sizes larger than 75-micron IS Sieve; the first method, wet sievings, shall be applicable to all soils and the second, dry sieving, shall be applicable only to soils which do not have an appreciable amount of clay.

1.1.2 For the determination of distribution of grain sizes smaller than 75microns, the pipette method is given as the standard method; the hydrometer method is given as a subsidiary method. This method shall be not applicable if less than 10 percent of the material passes the 75-micron IS Sieve (determined as given in 4).

IS : 9259 – 1979
(Reaffirmed 1987)

Indian Standard

**SPECIFICATION FOR LIQUID LIMIT APPARATUS FOR
SOILS**

(Incorporating Amendment No. 1)

1. SCOPE

1.1 This standard covers the requirements of liquid limit device, grooving tool and gauge block used for determination of liquid limit of soils by mechanical method.

Indian Standard

**SPECIFICATION FOR MOULD ASSEMBLY FOR
DETERMINATION OF PERMEABILITY OF SOILS**

1. SCOPE

1.1 This standard covers the details of mould, drainage base, drainage cap, extension collar, metal ring and rod used as the mould assembly for laboratory determination of the coefficient of permeability of soils.

Indian Standard

**SPECIFICATION FOR COMPACTION MOULD ASSEMBLY
FOR LIGHT AND HEAVY COMPACTION TEST FOR SOILS**

1. SCOPE

1.1 This standard covers the requirements of compaction mould assembly used for determination of water content : dry density relation of soils using light and heavy compaction.

Indian Standard
SPECIFICATION FOR SHEAR BOX FOR TESTING OF SOILS

1. SCOPE

1.1 This standard covers specification for shear box used as an assembly for the determination of shear strength of the soil with a maximum particle size of 4.75 mm.

Indian Standard

METHOD OF TEST FOR SOILS
PART 26 DETERMINATION OF *p*H VALUE
(Second Revision)

1. SCOPE

1.1 This standard (Part 26) lays down the procedure for the determination of pH value of soil suspension.

Indian Standard
PART 21 DETERMINATION OF TOTAL SOLUBLE SOLIDS
(First Revision)
(Incorporating Amendment No. 1)

1. SCOPE

1.1 This standard (Part 21) lays down the determination of total soluble solids content in soil both by gravimetric method which has been specified as the standard method and conductimetric method which has been specified as a subsidiary method.

Indian Standard

**METHODS OF TEST FOR SOILS
PART 15 DETERMINATION OF CONSOLIDATION PROPERTIES**

(First Revision)

1. SCOPE

1.1 This standard (Part 15) covers the method for conducting one dimensional consolidation test using either fixed or the floating ring for determining the consolidation characteristic of soil.

Indian Standard

**SPECIFICATION FOR CBR MOULDS AND ITS ACCESSORIES
(incorporating Amendments No. 1 and 2)**

1. SCOPE

1.1 This standard covers the details of mould, cutting collar, base plate, spacer disc, weights, penetration plunger and other accessories used for the determination of CBR value.

IS : 4332 (Part 1) – 1967
(Reaffirmed 1978)

Indian Standard

**METHODS OF TEST FOR STABILIZED SOILS
PART 1 METHOD OF SAMPLING AND PREPARATION OF
STABILIZED SOILS FOR
TESTING**

(Incorporating Amendment No. 1)

1. SCOPE

1.1 This standard (Part 1) lays down the general principles of sampling for obtaining disturbed samples and the method for preparation of stabilized soils for testing

Indian Standard

METHODS OF TEST FOR SOILS
PART 37 DETERMINATION OF SAND EQUIVALENT VALUE OF SOILS AND
FINE AGGREGATES

1. SCOPE

1.1 This standard (Part 37) covers the method for the determination of sand equivalent value of soils. This indicates, under standard conditions, the relative proportions of claylike or plastic fines, and dusts in granular soils and fine aggregates that pass 4.75-mm IS Sieve. This method is intended to serve as a rapid field-correlation test