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Designation: D 653 – 01

Standard Terminology Relating to Soil, Rock, and Contained Fluids[1]

This standard is issued under the fixed designation D 653; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

These definitions were prepared jointly by the American Society of Civil Engineers and the American Society for Testing and Materials.

INTRODUCTION

A number of the definitions include symbols and indicate the units of measurement. The symbols appear in italics immediately after the name of the term, followed by the unit in parentheses. No significance should be placed on the order in which the symbols are presented where two or more are given for an individual term. The applicable units are indicated by capital letters, as follows:

F—Force, such as pound-force, ton-force, newton

L—Length, such as inch, foot, centimetre

T—Time, such as second, minute

D—Dimensionless

Positive exponents designate multiples in the numerator. Negative exponents designate multiples in the denominator. Degrees of angle are indicated as "degrees."

Expressing the units either in SI or the inch-pound system has been purposely omitted in order to leave the choice of the system and specific unit to the engineer and the particular application, for example:

FL^{-2}—may be expressed in pounds-force per square inch, kilopascals, tons per square foot, etc.

LT^{-1}—may be expressed in feet per minute, centimetres per second, etc.

Where synonymous terms are cross-referenced, the definition is usually included with the earlier term alphabetically. Where this is not the case, the later term is the more significant.

Definitions marked with (ISRM) are taken directly from the publication in Ref 42 and are included for the convenience of the user.

For a list of ISRM symbols relating to soil and rock mechanics, refer to Appendix X1.

A list of references used in the preparation of these definitions appears at the end.

AASHTO compaction—see **compaction test**.

''A" Horizon—see **horizon**.

abandonment—see **decommissioning**. **D 5299**

abrasion—a rubbing and wearing away. (ISRM)

abrasion—the mechanical wearing, grinding, scraping or rubbing away (or down) of rock surfaces by friction or impact, or both.

abrasive—any rock, mineral, or other substance that, owing to its superior hardness, toughness, consistency, or other properties, is suitable for grinding, cutting, polishing, scouring, or similar use.

abrasiveness—the property of a material to remove matter when scratching and grinding another material. (ISRM)

absorbed water—water held mechanically in a soil or rock mass and having physical properties not substantially different from ordinary water at the same temperature and pressure.

absorption—the assimilation of fluids into interstices.

absorption loss—that part of transmitted energy (mechanical) lost due to dissipation or conversion into other forms (heat, etc.).

accelerator—a material that increases the rate at which chemical reactions would otherwise occur.

activator—a material that causes a catalyst to begin its function.

active earth pressure—see **earth pressure**.

[1] This terminology is under the jurisdiction of ASTM Committee D18 on Soil and Rock and is the direct responsibility of Subcommittee D18.93 on Terminology for Soil, Rock, and Contained Fluids.

Current edition approved August 10, 2001. Published December 2001. Originally published as D 653 – 42 T. Last previous edition D 653 – 97(2000).

This extensive list of definitions represents the joint efforts of Subcommittee D18.93 on Terminology for Soil, Rock, and Contained Fluids of ASTM Committee D-18 on Soil and Rock, and the Committee on Definitions and Standards of the Geotechnical Engineering Division of the American Society of Civil Engineers. These two groups function together as the Joint ASCE/ASTM Committee on Nomenclature in Soil and Rock Mechanics. This list incorporates some terms from ASTM Definitions D 1707, Terms Relating to Soil Dynamics, which were discontinued in 1967.

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