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## Standard Terminology for Geosynthetics<sup>1</sup>

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- absorption**, *n*—the process by which a liquid is drawn into and tends to fill permeable pores in a porous solid body, also, the increase in mass of a porous solid body resulting from penetration of a liquid into its permeable pores. **C 125**
- aerobic**, *n*—a condition in which a measurable volume of air is present in the incubation chamber or system. **D 1987**
- anaerobic**, *n*—a condition in which no measurable volume of air is present in the incubation chamber or system. **D 1987**
- apparent opening size (AOS),  $O_{95}$** , *n*—for a geotextile, a property which indicates the approximate largest particle that would effectively pass through the geotextile. **D 4751**
- atmosphere for testing geosynthetics**, *n*—air maintained at a relative humidity between 50 to 70 % and a temperature of  $21 \pm 2^\circ\text{C}$  ( $70^\circ \pm 4^\circ\text{F}$ ). **D 4439, D 4751, D 5494**
- back flushing**, *n*—a process by which liquid is forced in the reverse direction to the flow direction. **D 1987**
- basis weight**—deprecated term (do not use in the sense of mass per unit area). **D 4439**
- bend**, *vt*—in mechanics, to force an object from its natural or manufactured shape into a curve or into increased curvature. **D 4439**
- blinding**, *n*—for geotextiles, the condition where soil particles block the surface openings of the fabric, thereby reducing the hydraulic conductivity of the system. **D 4439**
- biocide**, *n*—a chemical used to kill bacteria and other microorganisms. **D 1987**
- breaking force, ( $F$ ),  $J$ ,  $n$** —the force at failure. **D 4885**
- breaking load**, *n*—the maximum force applied to a specimen in a tensile test carried to rupture. **D 4632**
- breaking toughness,  $T$ , ( $FL^{-1}$ ),  $Jm^{-2}$** , *n*—for geotextiles, the actual work-to-break per unit surface area of material. **D 4595, D 4885**
- chemical resistance**, *n*—the ability to resist chemical attack. **D 5322**
- clogging**, *n*—for geotextiles, the condition where soil particles move into and are retained in the openings of the fabric, thereby reducing the hydraulic conductivity. **D 4439**
- clogging potential**, *n*—in geotextiles, the tendency for a given geotextile to decrease permeability due to soil particles that have either lodged in the geotextile openings or have built up a restrictive layer on the surface of the geotextile. **D 5101**
- compressed thickness ( $t$ , ( $L$ ), mm)**, *n*—thickness under a specified stress applied normal to the material. **D 4439**
- constant-rate-of-load tensile testing machine (CRL)**, *n*—a testing machine in which the rate of increase of the load being applied to the specimen is uniform with time after the first 3 s. **D 4439**
- corresponding force**, *n*—synonym for force at specified elongation. **D 4885**
- coupon**, *n*—a portion of a material or laboratory sample from which multiple specimens can be taken for testing. **D 5747**
- creep**, *n*—the time-dependent increase in accumulative strain in a material resulting from an applied constant force. **D 5262**
- critical height ( $ch$ )**, *n*—the maximum exposed height of a cone or pyramid that will not cause a puncture failure of a geosynthetic at a specified hydrostatic pressure for a given period of time. **D 5514**
- cross-machine direction**, *n*—the direction in the plane of the fabric perpendicular to the direction of manufacture. **D 4632**
- density ( $\rho$ , ( $ML^{-3}$ ),  $kg/m^3$ )**, *n*—mass per unit volume. **D 4439**
- design load**—the load at which the geosynthetic is required to operate in order to perform its intended function. **D 5262**
- elastic limit**, *n*—in mechanics, the stress intensity at which stress and deformation of a material subjected to an increasing force cease to be proportional; the limit of stress within which a material will return to its original size and shape when the force is removed, and hence, not a permanent set. **D 4885**
- elongation at break**, *n*—the elongation corresponding to the breaking load, that is, the maximum load. **D 4632**
- failure**, *n*—an arbitrary point beyond which a material ceases to be functionally capable of its intended use. **D 4885, D 5262**
- failure**, *n*—in testing geosynthetics, water or air pressure in the test vessel at failure of the geosynthetic. **D 5514**
- flexible polypropylene**, *n*—a material having a 2 % secant modulus of less than 300 MPa (40,000 psi) as determined by Test Method D 5323 produced by polymerization of propylene with or without other alpha olefin monomers.

<sup>1</sup> This terminology is under the jurisdiction of D35 on Geosynthetics and is the direct responsibility of Subcommittee D35.93 on Editorial and Terminology. Current edition approved September 10, 2004. Published November 2004. Originally published as D 4439 – 84. Last previous edition D 4439 – 001.