



Designation: D5121 – 22

Standard Practice for Preparation of Rock Slabs for Durability Testing¹

This standard is issued under the fixed designation D5121; 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.

1. Scope*

1.1 This practice covers the preparation of rock slabs for various tests and any visual inspections used to evaluate the durability of rock for erosion control. These tests include, but are not limited to, Test Methods [D5240/D5240M](#), [D5312/D5312M](#), and [D5313/D5313M](#). This practice is appropriate for the assessment of breakwater stone, armor stone, riprap, and gabion sized rock materials.

1.2 *Units*—The values stated in SI units are to be regarded as standard. The inch-pound units given in parentheses are for information only.

1.3 All observed and measured values shall conform to the guidelines for significant digits and rounding established in Practice [D6026](#), unless superseded by this standard.

1.4 *This practice offers a set of instructions for performing one or more specific operations. This document cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this practice may be applicable in all circumstances. This ASTM standard is not intended to represent or replace the standard of care by which the adequacy of a given professional service must be judged, nor should this document be applied without consideration of a project's many unique aspects. The word "Standard" in the title of this document means only that the document has been approved through the ASTM consensus process.*

1.5 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and environmental practices and determine the applicability of regulatory limitations prior to use. For a specific hazards statement, see Section 7.*

1.6 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recom-*

mendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.

2. Referenced Documents

2.1 *ASTM Standards:*²

[D653 Terminology Relating to Soil, Rock, and Contained Fluids](#)

[D3740 Practice for Minimum Requirements for Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction](#)

[D4992 Practice for Evaluation of Rock to be Used for Erosion Control](#)

[D5240/D5240M Test Method for Evaluation of the Durability of Rock for Erosion Control Using Sodium Sulfate or Magnesium Sulfate](#)

[D5312/D5312M Test Method for Evaluation of Durability of Rock for Erosion Control Under Freezing and Thawing Conditions](#)

[D5313/D5313M Test Method for Evaluation of Durability of Rock for Erosion Control Under Wetting and Drying Conditions](#)

[D6026 Practice for Using Significant Digits and Data Records in Geotechnical Data](#)

3. Terminology

3.1 *Definitions*—For definitions of common technical terms used in this standard, refer to Terminology [D653](#).

3.2 *Definitions of Terms Specific to This Standard:*

3.2.1 *rock saw, n*—a saw capable of cutting rock. The term “rock saw” shall include the blade which saws the rock, any components that control or power the sawing process or both, and framework on which the blade and any other associated components are mounted.

3.2.1.1 *Discussion*—A rock saw may be a water-cooled diamond blade or diamond wire saw.

3.2.2 *slab, n*—a section of rock having two smooth, approximately parallel faces, produced by two saw cuts. The thickness of the slab is generally less than the other dimensions

¹ This practice is under the jurisdiction of ASTM Committee [D18](#) on Soil and Rock and is the direct responsibility of Subcommittee [D18.17](#) on Rock for Erosion Control.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

*A Summary of Changes section appears at the end of this standard