



Designation: D7276 – 16 (Reapproved 2023)

Standard Guide for Analysis and Interpretation of Test Data for Articulating Concrete Block (ACB) Revetment Systems in Open Channel Flow¹

This standard is issued under the fixed designation D7276; 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 The purpose of this guide is to provide recommended guidelines for the analysis and interpretation of hydraulic test data for articulating concrete block (ACB) revetment systems under steep slope, high velocity flow conditions in a rectangular open channel. Data from tests performed under controlled laboratory conditions are used to quantify stability performance of ACB systems under hydraulic loading. This guide is intended to be used in conjunction with Test Method [D7277](#).

1.2 This guide offers an organized collection of information or a series of options and does not recommend a specific course of action. This document cannot replace education or experience and should be used in conjunction with professional judgment. Not all aspects of this guide may be applicable in all circumstances. This ASTM standard is not intended to represent or replace the standard of care by which adequacy of a given professional service must be judged, nor can this document be applied without considerations 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.

1.3 The values stated in inch-pound units are to be regarded as standard. The user of the standard is responsible for any and all conversions to other systems of units. Reporting of test results in units other than inch-pound shall not be regarded as nonconformance with this test method.

1.4 *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.*

1.5 *This international standard was developed in accordance with internationally recognized principles on standard-*

ization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations 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](#)

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

[D6684 Specification for Materials and Manufacture of Articulating Concrete Block \(ACB\) Systems](#)

[D6884 Practice for Installation of Articulating Concrete Block \(ACB\) Revetment Systems](#)

[D7277 Test Method for Performance Testing of Articulating Concrete Block \(ACB\) Revetment Systems for Hydraulic Stability in Open Channel Flow](#)

3. Terminology

3.1 For definitions of common terms used in this standard, see Terminology [D653](#).

4. Summary of Guide

4.1 The analysis and interpretation of data from hydraulic tests of articulating concrete block (ACB) revetment systems is essential to the selection and design of a suitable system for a specific application. This guide provides guidelines for assisting designers and specifiers in developing a correspondence between the test data and the stability parameters used for design.

4.2 This standard addresses the analysis of hydraulic test data that is generated from a test or series of tests conducted in accordance with Test Method [D7277](#).

¹ This guide is under the jurisdiction of ASTM Committee [D18](#) on Soil and Rock and is the direct responsibility of Subcommittee [D18.25](#) on Erosion and Sediment Control Technology.

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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.