



BSI Standards Publication

Earthworks — Geotechnical laboratory tests

Part 3: Methylene blue value VBS on soils and rocks

National foreword

This British Standard is the UK implementation of [EN 17542-3:2022](#).

The UK participation in its preparation was entrusted to Technical Committee B/526/-/1, Earthworks.

A list of organizations represented on this committee can be obtained on request to its committee manager.

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient's own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

© The British Standards Institution 2022
Published by BSI Standards Limited 2022

ISBN 978 0 539 13847 4

ICS 93.020

Compliance with a British Standard cannot confer immunity from legal obligations.

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 31 August 2022.

Amendments/corrigenda issued since publication

Date	Text affected
------	---------------

English Version

Earthworks - Geotechnical laboratory tests - Part 3: Methylene blue value VBS on soils and rocks

Terrassements - Essais géotechniques en
laboratoire - Partie 3 : Valeur de bleu de
méthylène VBS d'un sol ou d'une roche

Erdarbeiten - Geotechnische Laborversuche - Teil
3: Methylenblauwert VBS an Boden und Fels

This European Standard was approved by CEN on 20 April 2022.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword	iii
Introduction	iv
1 Scope	5
2 Normative references	5
3 Terms and definitions	5
4 Principle of the test	6
5 Apparatus	6
5.12 Spatula	6
5.13 Desiccator	7
6 Reagents	7
6.1 Dye solution	7
6.2 Preparation of 10 g/l methylene blue solution	7
7 Preparation of the test portions	8
7.1 If $D_{\max}$ is greater than 50 mm	8
7.2 If $D_{\max}$ is ranging between 5 mm and 50 mm	8
7.3 Washing procedure for materials > 5 mm	8
7.3.1 Materials concerned	8
7.3.2 Step 1 – Brushing	8
7.3.3 Step 2 – Washing	8
7.4 If $D_{\max}$ is smaller or equal at 5 mm	9
8 Procedure	9
8.1 Description of the stain test	9
8.2 Preparation of suspension	9
8.3 Determination of the quantity of dye adsorbed	10
9 Calculation and expression of results	10
10 Test report	11
Annex A (informative) Example of a test data sheet	12
Annex B (informative) Alternative size fraction	13
Bibliography	14

European foreword

This document ([EN 17542-3:2022](#)) has been prepared by Technical Committee CEN/TC 396 “Earthworks”, the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by December 2022, and conflicting national standards shall be withdrawn at the latest by December 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The Methylene blue value V_{BS} on soils and rocks is an identification parameter adopted in the classification of materials for earthworks according to [EN 16907-2](#). It is also used for providing some specifications for construction procedures according to [EN 16907-3](#).