DIN EN 14475

ICS 93.020

Execution of special geotechnical works – Reinforced fill
English version of DIN EN 14475:2006-04

Ausführung von besonderen geotechnischen Arbeiten (Spezialtiefbau) – Bewehrte Schüttkörper
Englische Fassung DIN EN 14475:2006-04

Document comprises 58 pages

10.06 9729093

National foreword

This standard has been prepared by CEN/TC 288 ‘Execution of special geotechnical works’ (Secretariat: France).

The responsible German body involved in its preparation was the *Normenausschuss Bauwesen* (Building and Civil Engineering Standards Committee), Technical Committee NA 005-05-20 AA *Bodenbewehrungssysteme.*

The DIN Standards corresponding to British Standard BS1377 referred to in the bibliography of the EN are as follows:

DIN 4020, *Geotechnical investigations for civil engineering purposes*

DIN 18196, *Earthworks — Soil classification for civil engineering purposes and methods of soil identification*

DIN 18300, *Construction contract procedures (VOB) — Part C: General technical specifications in construction contracts (ATV) — Earthworks*

The German document corresponding to British Standard BS8006 and French Standard NF P 94-220 referred to in the bibliography of the EN is as follows:

Empfehlungen für Bewehrungen aus Kunststoffen (Recommendations on Soil Reinforcement with Geosynthetics) (EBGEO) of the *Deutsche Gesellschaft für Geotechnik* (DGGT) (German Society for Geotechnics), Ernst & Sohn Verlag, 1997.

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 14475

January 2006

ICS 93.020

English Version

Execution of special geotechnical works - Reinforced fill

Exécution de travaux géotechniques spéciaux - Remblais renforcés

Ausführung von besonderen geotechnischen Arbeiten (Spezialtiefbau) - Bewehrte Schüttkörper

This European Standard was approved by CEN on 10 November 2005.

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 Central Secretariat 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 Central Secretariat has the same status as the official versions.

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

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

Management Centre: rue de Stassart, 36 B-1050 Brussels

Ref. No. EN 14475:2006: E

Contents

Foreword

This document (EN 14475:2006) has been prepared by Technical Committee CEN/TC 288 “Execution of special geotechnical works”, 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 July 2006, and conflicting national standards shall be withdrawn at the latest by July 2006.

The design of reinforced fill structures is currently carried out using national standards such as BS 8006 (1995) and NF P 94-220 (1998) and other standards. As a matter of fact EN 1997-1, Eurocode 7 (Geotechnical design) does not currently cover the detailed design of reinforced fill structures. The values of partial factors and load factors given in EN 1997-1 have not been calibrated for reinforced fill structures.

Whilst many common features exist between the design methods that have been developed and established in the various member countries of CEN, there are also differences reflecting different working practices, as well as such matters as geological and climatic variations.

In view of these differences, and of the time required to develop a common design method that would fully reflect the various considerations identified in particular national methods, a two stage approach has been adopted for the development of standards for reinforced fill.

In accordance with this two stage approach Working Group 9 was mandated by TC 288 for first producing an EN giving guidance on the Execution of reinforced fill, before working towards a common method of design. This standard represents the implementation of the first part of that mandate.

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

1 Scope

1.1 This European Standard establishes general principles for the construction of reinforced fill.

1.2 This European Standard covers engineered fills that are reinforced by the inclusion of horizontal or sub-horizontal reinforcement placed between layers of fill during construction.

1.3 The scope of reinforced fill applications considered in this European Standard includes (Figure 1):

— earth retaining structures, (vertical, battered or inclined walls, bridge abutments, bulk storage facilities), with a facing to retain fill placed between the reinforcing layers;

— reinforced steep slopes with a facing, either built-in or added or wrap-around, reinforced shallow slopes without a facing, but covered by some form of erosion protection without a facing, reinstatement of failed slopes;

— embankments with basal reinforcement and embankments with reinforcement against frost heave in the upper part.

Principles for the execution of other special geotechnical works using soil nails, bored piles, displacement piles, micro piles, sheet pile walls, diaphragm walls, grouting or jet grouting are established in other European Standards.

Reinforcement of road pavements is not covered by this Standard.