# SLOVENSKI STANDARD
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**Izboljġevalci tal in rastni substrati - Oznaḷ evanje, specifikacije in seznami proizvodov**

Soil improvers and growing media - Labelling, specifications and product schedules



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# Soil improvers and growing media - Labelling, specifications and product schedules

Bodenverbesserungsmittel und Kultursubstrate - Kennzeichnung, Anforderungen und Produktlisten

This CEN Report was approved by CEN on 17 March 1999. It has been drawn up by the Technical Committee CEN/TC 223.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



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

**Central Secretariat: rue de Stassart, 36 B-1050 Brussels**



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## INTRODUCTORY NOTE TO CEN REPORT (PrEN 12577 & PrEN 1278)

In October 1996 prEN 12577 *Soil improvers and growing media - Labelling* and prEN 12578 *Soil improvers and growing media - Specifications - Product schedules* were submitted to Public Enquiry with the intention that they should be published as European Standards. However, Working Group 1 of CEN/TC 223 (which was responsible for prEN 12577 and prEN 12578) concluded at its second Comments Resolution Meeting (CRM) in September 1997 that the Technical Committee should stop work on these two work items and withdraw the studies with the establishment of a CEN Report (CEN/TC 223 N173).

The reasons for their decision were reported by the Convenor of the Working Group in CEN/TC 223 N173. Essentially the two items, prEN 12577 (Labelling) and pr EN 12578 (Specifications - Products schedules), although not mandated had given rise to national conflicts as these areas are covered in several countries by legislation. Requests for A-deviations with accompanying text had been received by France and Germany during the Public Enquiry. Austria had not prepared any text for A-deviation, but had indicated their intention to have A-deviations to prEN 12577 and prEN 12578[1]. During the plenary meeting of TC 223 in June 1997, Spain and the Netherlands indicated their intent to submit A-deviations if possible at this stage. The CRM Convenor reported that countries with legislation wanted full covering standards from the day of implementation, including all methods of analyses, and not a step by step procedure as presupposed in prEN 12578. The specifications and the obligatory and optional declarations which required measurement, had been limited to those parameters for which TC 223 prEN draft analytical methods were available. TC 223 had agreed that once further analytical methods were available the specifications and the obligatory and optional declarations would be extended (see Introduction). The CRM Convenor also reported that no country with legislation was, in the process of European Standardizaton, willing to, or able to, change any of the specifications laid down in their legislation (for example maximum limits of undesirable substances).



The CRM recommended that the best solution to continue harmonization of trade with soil improvers and growing media in Europe, was to stop the standardization on the two work items and to publish the revised prENs as a CEN Report. It recommended that the CEN Report be sent to the European Commission as the basis for further harmonization in this politically influenced area.



Another obstacle was the development of a system of specific product schedules. As the scope of prEN 12577 and prEN 12578 covered all soil improvers and growing media, the list of products had increased substantially. It became clear that a maintenance agency would need to be established in order to frequently revise the list and in effect provide a product registration system. This was not practical and it was not the intention of TC 223 to have such a system.

Results of a questionnaire prepared by the Working Group Convenor showed that all countries replying had supported the CEN Report decision.[2] The results also showed overwhelming support for the continued standardization of methods for sampling and analysis.

PrEN 12577 and prEN 12578, revised in accordance with the technical and editorial decisions taken on the Public Enquiry comments, were merged into one document as the two items were inextricably linked.

The unanimous TC 223 decision to produce a CEN Report is recorded in CEN/TC 223 Resolution 044/1998/00 taken by correspondence on 1998-04-18.

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[1] A-deviation text from Austria was produced at the TC 223 WG 1 meeting in April 1998 and it is appended to the CEN Report.

[2] Spain changed their vote from objection to approval for the publication of a CEN Report, which gave unanimous approval from Members voting.

## Foreword

This CEN Report is published by the European Committee for Standardization. It has been prepared by CEN/TC 223/WG 1 and contains the text of prEN 12577 and prEN 12578, merged, and revised in accordance with decisions taken during the Public Enquiry. It is published for information only and does not have the status of a European Standard. The subsequent text in this CEN Report, starting with the Introduction, is in the style of a European Standard but it is for information only.

## Introduction

The requirements in this CEN Report are limited to some chemical and physical parameters for which analytical methods are already described in available drafted documents (drafts of prEN's). The committee which is responsible for the CEN Report is aware of the need for further details concerning nutrient contents, the suitability or otherwise for organic farming (e.g. sewage sludge, mineral fertilizer, pesticide residues etc.) and for the assessment of harmful effects caused by unavoidable pollutants.

The preparation of suitable analytical methods is on the way. They will be published as soon as possible. An extended version of this CEN Report will be drafted when the analytical methods are available.

## 1 Scope

This CEN Report gives labelling and specification requirements for soil improvers, soil improver constituents, growing media and growing media constituents. Specifications for designated products are given in product schedules in annex A.

This CEN Report does not apply to liming and other materials covered by CEN/TC 260.

## 2 Normative references

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this CEN Report only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

| | |
|---|---|
| EN 12580[1] | Soil improvers and growing media - Determination of a quantity |
| EN 13037[1] | Soil improvers and growing media - Determination of pH value |
| EN 13038[1] | Soil improvers and growing media - Determination of electrical conductivity |
| EN 13039[1] | Soil improvers and growing media - Determination of organic matter content and ash |
| EN 13040[1] | Soil improvers and growing media - Sample preparation and determination of dry matter content, moisture content and laboratory compacted bulk density |
| EN 13041[1] | Soil improvers and growing media - Determination of physical properties - Dry bulk density, air volume, water volume, shrinkage value and total pore space |
| ISO 7409 | Fertilizers - Marking - Presentation and declarations |
| ISO 11260 | Soil quality - Determination of effective cation exchange capacity and base saturation level using barium chloride solution |
| ISO 11277 | Soil quality - Determination of particle size distribution in mineral soil material - method by sieving and sedimentation |



## 3 Terms and definitions

For the purposes of this CEN Report the following terms and definitions apply :

**3.1**
**soil improver constituent**
material which is suitable as an ingredient of soil improver

**3.2 soil improver**
material added to soil in situ primarily to maintain or improve its physical properties, and which may improve its chemical and/or biological properties or activity

**3.3 growing medium constituent**
material which is suitable as an ingredient of growing media

**3.4 growing medium**
material, other than soils in situ, in which plants are grown

**3.5 organic materials**
materials of plant and animal origin

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[1] In preparation

**3.6 obligatory labelling**
information which shall be shown on the package, label or on the accompanying documents stated in accordance with this report, inside the frame

**3.7 optional labelling**
information which may be shown on the package, label or on the accompanying documents stated in accordance with this report, inside the frame

**3.8 voluntary labelling**
additional information which may be shown on the package, label or on the accompanying documents stated in accordance with this report, outside of the frame

## 4 Requirements

### 4.1 General labelling requirements

**4.1.1** The labelling shall be divided into three parts :

- Obligatory part in accordance with 4.2;
- Optional part in accordance with 4.3;
- Voluntary part in accordance with 4.4.

**4.1.2** The obligatory and optional labelling shall be given in a frame as shown in figure 1, or, by an accompanying document. None of the labelling shall contain contradictory information. No voluntary labelling shall be placed inside the frame.



NOTE: A country may require that products sold in its territory are labelled in its national language or languages.

**4.1.3** The print size of the label shall be in accordance with ISO 7409.

| | EN YYY |
|---|---|
| **Composted material**: Soil improver/growing medium constituent | |
| **Major consituents**: | Park and garden waste<br>Horse manure |
| **Particle size distribution** : | |
| **Dry matter** | $x_7$ % |
| **Organic matter in dry matter**: | $x_1$ % |
| **Electrical conductivity**: | $x_2$ U |
| **pH** | $x$ |
| **Quantity** | $x_8$ U |
| **Batch code** : | |
| **Recommended use** : | No special requirements |
| **Responsible person**: | The Associated Composters Downstreet, Uptown, Noland |



NOTE : $x_n$ and $y_n$ are numbers and U is the chosen unit stated in the standard analytical method.



**Figure 1: Labelling example**



### 4.2 Obligatory labelling requirements

Obligatory labelling shall include :

a) The number of this CEN Report.

b) Product designation in accordance with the product schedules in Annex A (see 4.5);

c) Name and address of the responsible person;

d) Declarations :

1) Major (i.e. more than about 10% (*V/V*)) constituents listed in descending order of proportion by volume. Exact percentages need not be declared.

2) Physical and chemical characteristics in accordance with the product schedules in Annex A (see 4.5);

3) Quantity in pack/consignment, in accordance with the product schedules in Annex A (see 4.5);

e) Safety labelling: To include any information, declaration or guideline necessary for the safe handling and use of the product;

NOTE 1: Guidelines can be found in CR 13455

f) Batch code.

NOTE 2: This may be given with reference to a term such as "See back of bag";

g) Recommended method of use/application, for example : The rate of use for specific applications. If there are no special requirements, a term such as "No special requirements for correct use" is acceptable.

NOTE 3: This may be given by reference to a statement elsewhere on the package, other than inside the label frame

**4.3 Optional labelling requirements**

Optional labelling shall include only the parameters or the information mentioned in this part of the standard (4.3) as follows :

a) Declarations : Physical and chemical characteristics in accordance with the appropriate product schedule in Annex A (see 4.5);

b) Additives included in the product and their purpose;

c) Quality System Certification: Only European Standards, for example : one of the standards in the EN ISO 9000 series, shall be referred to;

d) Best before (date).

NOTE: This may be given with reference to a term such as "See back of bag";

e) Recommended conditions for storage.



**4.4 Voluntary labelling requirements**

Voluntary labelling shall include parameters and information not included in 4.2 or 4.3 of this standard, and which are consistent with the following :



a) Shall not mislead the user, for example by attributing to the product properties that it does not possess or by suggesting that it possesses unique characteristics which similar products also have;

b) Shall relate to objective or quantifiable factors which are provable ;

c) May refer to national standards and other marks of quality.

**4.5 Product specific requirements**

The product shall comply with the labelling and specification requirements as given in columns b), d) e) and f) of table A.1 or table A.2. Annex A contains a number of product schedules for soil improvers and growing media, listing

a) index number;
b) product designation;
c) description;
d) specifications;
e) obligatory declarations;
f) optional declarations.

The values of the physical and chemical characteristics included in the obligatory and optional labelling declarations and specification requirements for each product, shall be determined in accordance with the test method as specified in table B.1 of this standard, see Annex B.

A full list of the physical and chemical characteristics in the order in which they shall be declared on the label is given in table B.1 of this report, see annex B.

NOTE : This CEN Report does not specify tolerances for the declared values.

## Annex A (normative)

## Product schedules for soil improvers and growing media

**Table A.1 Product schedules for soil improvers and soil improver constituents**

| a) Index no. | b) Product Designation | c) Description | d) Specifications | e) Obligatory Declarations | f) Optional Declarations |
|---|---|---|---|---|---|
| 1.1 | Raised Bog Peat | Organic material obtained from raised bogs and mainly consisting of Sphagnum species | Organic matter in dry matter, > 90 % (m/m) | • Organic matter in dry matter, %<br>• pH<br>• Quantity by volume | • Dry matter, %<br>• Electrical conductivity ;EC |
| 1.2 | Fen Peat | Organic material obtained from mires and mainly consisting of sedge, reed or swamp-forest peat, or mixtures hereof. | Organic matter in dry matter, > 45 % (m/m) | • Whether "sedge", "reed", "swamp-forest" (or mixture hereof)<br>• Organic matter in dry matter, %<br>• pH<br>• Quantity by volume | • Dry matter, %<br>• Electrical conductivity, EC |
| 1.3 | Composted Green Material | Product obtained by thermophilic aerobic processing, including anaerobically pretreated organic matter such as green cut, garden and park waste and forest biomass. | Organic matter in dry matter, > 20% (m/m) | • Major (i.e. more than about 10% v/v) constituents by descending proportion<br>• Organic matter in dry matter, %<br>• Electrical conductivity, EC<br>• pH<br>• Quantity by volume | • Dry matter, % |

| a) Index no. | b) Product Designation | c) Description | d) Specifications | e) Obligatory Declarations | f) Optional Declarations |
|---|---|---|---|---|---|
| 1.4 | Composted Bio Material | Product obtained by thermophilic aerobic processing, including anaerobically pretreated organic matter such as separately collected biogenic waste and aquatic biomass | Organic matter in dry matter, > 20 % (m/m) | • Major (i.e. more than about 10% (v/v) constituents by descending proportion<br>• Organic matter in dry matter, %<br>• Electrical conductivity, EC<br>• pH<br>• Quantity by volume | • Dry matter, % |
| 1.5 | Composted Material with animal excreted matter including paunch contents | Product obtained by thermophilic aerobic processing, including anaerobically pretreated organic matter such as plant material, animal excretments and paunch contents | Organic matter in dry matter, > 20 % (m/m) | • Major constituents by descending proportion<br>• Organic matter in dry matter, %<br>• Electrical conductivity, EC<br>• pH<br>• Quantity by volume | • Dry matter, % |
| 1.6 | Spent Mushroom Compost | Product obtained as a residue of mushroom production, with or without cover soil | Organic matter in dry matter, > 20 % (m/m) | • Organic matter in dry matter, %<br>• Electrical conductivity, EC<br>• pH<br>• Quantity by volume | • Dry matter, % |
| 1.7 | Bark | Bark from one or more type of tree or tree species | Organic matter in dry matter, > 40 % (m/m) | • Whether from "coniferous" or "deciduous" trees<br>• If "aged", state: "Aged minimum " (months or years)<br>•<br>• Organic matter in dry matter, %<br>• pH<br>• Quantity by volume | • Dry matter, %<br>• Electrical conductivity, EC |

| a) Index no. | b) Product Designation | c) Description | d) Specifications | e) Obligatory Declarations | f) Optional Declarations |
|---|---|---|---|---|---|
| 1.8 | Composted Bark | Composted bark from one or more types of tree or tree species | Organic matter in dry matter > 30 % (m/m) | • Whether from "coniferous" and/or "deciduous" trees<br>• Organic matter in dry matter, %<br>• pH<br>• Quantity by volume | • Dry matter, %<br>• Electrical conductivity, EC |
| 1.9 | Wood Fibre | Product obtained by fraying (rasping) of untreated wood | Organic matter in dry matter > 90 % (m/m) | • Whether from "coniferous" and/or "deciduous" trees<br>• If "extracted": state extractant<br>• Added colouring or brightening agents<br>• Organic matter in dry matter, %<br>• pH<br>• Quantity by volume | • Dry matter, %<br>• Electrical conductivity, EC |
| 1.10 | Wood Chips | Wood chips produced by a mechanical process from untreated wood | Organic matter in dry matter > 90 % (m/m) | • Whether from "coniferous" and/or "deciduous" trees<br>• Organic matter in dry matter, %<br>• pH<br>• Quantity by volume | • Dry matter, %<br>• Electrical conductivity, EC |
| 1.11 | Coir | Fibre and/or pith from coconut husks | Organic matter in dry matter > 90 % (m/m) | • Organic matter in dry matter, %<br>• pH<br>• Quantity by volume | • Dry matter, %<br>• Electrical conductivity, EC |
| 1.12 | Straw | Straw obtained by harvesting and cutting ripened crop residues | Organic matter in dry matter >90 % (m/m) | • Name of plant species<br>• Organic matter in dry matter, %<br>• Quantity by volume | • Dry matter, % |