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National Standards
Authority of Ireland
Glasnevin, Dublin 9
Ireland
Tel: +353 1 807 3800
Fax: +353 1 807 3838
http://www.nsai.ie

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SOIL IMPROVERS AND GROWING MEDIA - DETERMINATION OF PARTICLE SIZE DISTRIBUTION

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Soil improvers and growing media - Determination of particle size distribution

Amendements du sol et supports de culture - Détermination de la répartition granulométrique

Bodenverbesserungsmittel und Kultursubstrate - Bestimmung der Partikelgrößenverteilung

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

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Foreword

This document (EN 15428:2007) has been prepared by Technical Committee CEN/TC 223 “Soil improvers and growing media”, the secretariat of which is held by BSI.

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of an identical text or by endorsement, at the latest by March 2008, and conflicting national standards shall be withdrawn at the latest by March 2008.

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1 Scope

This document specifies a method of determination of particle size distribution in soil improvers and growing media.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 12579, *Soil improvers and growing media - Sampling*

EN 13040:2007, *Soil improvers and growing media — Sample preparation for chemical and physical tests, determination of dry matter content, moisture content and laboratory compacted bulk density*

CR 13456:1999, *Soil improvers and growing media — Labelling, specifications and product schedules*

ISO 565, *Test sieves - Metal wire cloth, perforated metal plate and electroformed sheet - Nominal sizes of openings*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in CR 13456:1999 and EN 13040:2007 apply.

4 Principle

Sieving an air-dried sample of a growing medium or soil improver with specified test sieves using a mechanical sieving machine and determination of the weight fraction distribution.

5 Apparatus

5.1 Sieving-shaking machine, vertical vibrating movement, with amplitude adjustment, and interval timer. Sieving time: 7 min in periods of 10 s shaking and 1 s rest with an amplitude in the range between 0,5 mm and 1,5 mm.

5.2 Test sieves, diameter 200 mm or 300 mm, rim height 55 mm, aperture sizes as listed in ISO 565, of stainless steel woven wire with square openings 31,5 mm, 16,0 mm, 8,0 mm, 4,0 mm, 2,0 mm, 1,0 mm, and reception tray, sieve lid.

5.3 Drying oven, forced air suction, adjustable to 40 °C ± 5 °C.

NOTE Care should be taken to prevent loss of fine lightweight particles.

5.4 Three drying trays, rim height ca 50 mm ± 10 mm, minimum bottom area of 400 cm^2, heat proof to 50 °C.

5.5 Balance with a weighing range at least 4 kg and an accuracy 0,1 g.

5.6 Apparatus for sample division, comprising any suitable equipment for combining and reducing the samples which preserves the characteristics of the product. Depending on the particle size, material and