Pigmendid tsemendil ja/või lubjal põhinevate ehitusmaterjalide värvimiseks. Spetsifikatsioon ja katsemeetodid

Pigments for the colouring of building materials based on cement and/or lime - Specifications and methods of test

EESTI STANDARDIKESKUS
ESTONIAN CENTRE FOR STANDARDISATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN 12878:2014 sisaldab Euroopa standardi EN 12878:2014 inglisekeelset teksti.	This Estonian standard EVS-EN 12878:2014 consists of the English text of the European standard EN 12878:2014.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 09.04.2014.	Date of Availability of the European standard is 09.04.2014.
Standard on kättesaadav Eesti Standardikeskusest.	The standard is available from the Estonian Centre for Standardisation.

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

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English Version

Pigments for the colouring of building materials based on cement and/or lime - Specifications and methods of test

Pigments de coloration des matériaux de construction à base de ciment et/ou de chaux - Spécifications et méthodes d'essai

Pigmente zum Einfärben von zement- und/oder kalkgebundenen Baustoffen - Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 4 January 2014.

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Foreword

This document (EN 12878:2014) has been prepared by Technical Committee CEN/TC 298 “Pigments and extenders”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2014 and conflicting national standards shall be withdrawn at the latest by January 2016.

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

This document supersedes EN 12878:2005.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of the Construction Production Regulation (CPR).

For relationship with the Construction Production Regulation, see informative Annex ZA, which is an integral part of this document.

EN 12878:2005 has been technically revised as follows:

a) requirements for Category B regarding water soluble substances in 4.2.3 modified to accommodate non powder preparations;

b) test method for total chlorine content (5.2.5) changed;

c) permission to use alternative test methods with proven correlation to standard methods added;

d) light source amended;

e) Annex ZA has been changed to consider the new Construction Production Regulation (CPR).

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

1 Scope

This European Standard specifies the requirements and the methods of test for pigments for use in the colouring of building materials based on cement and cement/lime combinations.

Pigments covered by this European Standard may also be used in pure lime mortar. For this application, see EN 459-1 and EN 459-2.

Pigments for this purpose may be single pigments, blends of pigments, or blends of pigments and extenders, in powder or granular form, or aqueous preparations.

Pigments typically belong to one of the following classes of compounds:

— synthetic or natural oxides and hydroxides of iron;

— oxides of chromium, titanium and manganese;

— complex inorganic pigments, for example combinations of the above mentioned metal oxides and hydroxides with cobalt, aluminium, nickel and antimony oxides and hydroxides;

— ultramarine pigments;

— phthalocyanine blue and green;

— elemental carbon (shall be regarded as an inorganic pigment);

— blends of the above materials (which may also include extenders).

2 Normative references

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

EN 196-1:2005, *Methods of testing cement - Part 1: Determination of strength*

EN 196-3, *Methods of testing cement - Part 3: Determination of setting times and soundness*

EN 197-1, *Cement - Part 1: Composition, specifications and conformity criteria for common cements*

EN 934-1:2008, *Admixtures for concrete, mortar and grout - Part 1: Common requirements*

EN ISO 787-3, *General methods of test for pigments and extenders - Part 3: Determination of matter soluble in water - Hot extraction method (ISO 787-3)*

EN ISO 787-7, *General methods of test for pigments and extenders - Part 7: Determination of residue on sieve - Water method - Manual procedure (ISO 787-7)*

EN ISO 787-9, *General methods of test for pigments and extenders - Part 9: Determination of pH value of aqueous suspension (ISO 787-9)*

EN ISO 787-13, *General methods of test for pigments and extenders - Part 13: Determination of water-soluble sulfates, chlorides and nitrates (ISO 787-13)*

EN ISO 15528, *Paints, varnishes and raw materials for paints and varnishes - Sampling (ISO 15528)*

ISO 9277, *Determination of the specific surface area of solids by gas adsorption - BET method*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
pigment
substance, generally in the form of fine particles, which is practically insoluble in the application medium and whose sole purpose is to colour cement- and/or lime-based building materials

3.2
single pigment
pigment that is of singular (chemical) composition

Note 1 to entry: Single pigments contain no substances other than those originating from the pigment manufacturing process.

Note 2 to entry: Surface treatment of the primary pigment particles is considered as a part of the pigment manufacturing process.

3.3
pigment blend
blend of at least two single pigments, or at least one single pigment and an extender

3.4
aqueous pigment preparation
preparation in which a pigment (single pigment or pigment blend) is dispersed in water, with or without a dispersion or other agent

EXAMPLES of agents are:

– dispersants;

– binding agents (resins);

– solvents;

– wetting agents;

– or combinations thereof.

3.5
pigment in granular form
preparation in which a pigment (single pigment or pigment blend) is converted into granules, by the use of the binding agent which retains the integrity of the granule

3.6
reference sample; standard pigment
sample of a single pigment or a blend (powder, or preparation) retained by the interested parties for comparison for the evaluation of the product properties (e.g. colour)