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Ceramic tiling systems — Sustainability for ceramic tiles and installation materials —

Part 2: Specification for tile installation materials

Systèmes de carreaux céramiques - Durabilité des carreaux céramiques et des matériaux de pose —

Partie 2: Spécification pour les matériaux de pose de carreaux

Reference number
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ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 189, *Ceramic tile*.

A list of all parts in the ISO 17889 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

This document outlines the requirements for sustainable tiles and installation materials including environmental, economic and social criteria, in order to:

— promote the development and use of sustainable ceramic tiles and installation materials;

— guide all stakeholders in environmental responsibility throughout the supply chain for tiles and installation materials;

— provide a verifiable resource for tile product specification and for design professionals, contractors and consumers to identify sustainable tiles and installation materials;

— increase the value of sustainable tiles and installation materials throughout the supply chain by creating greater market awareness and demand.

This document provides a system for sustainability assessment using the life cycle approach, qualitative and quantitative indicators for environmental, economic and social performance of ceramic tiling systems. This document is focused on tile installation materials.

This document can be used to assess the sustainability performance of the product of interest. Evaluation schemes, taking into account the materials mentioned in the product standards, to enable comparability of the results of assessment, are part of this document.

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Ceramic tiling systems — Sustainability for ceramic tiles and installation materials —

Part 2:
Specification for tile installation materials

1 Scope

This document specifies sustainability requirements together with assessment methods and evaluation schemes for ceramic tiles and installation materials.

This document includes relevant criteria across product life cycle from raw material through manufacturing, use, and end-of-life management.

This document applies to ceramic tile installation materials including: ceramic tiles, adhesives, grouts, membranes, etc. This document deals with adhesives and other tiling materials.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 11890-1, *Paints and varnishes — Determination of volatile organic compound (VOC) content — Part 1: Difference method*

ISO 11890-2, *Paints and varnishes — Determination of volatile organic compounds(VOC) and/or semi volatile organic compounds (SVOC) content — Part 2: Gas-chromatographic method*

ISO 14024, *Environmental labels and declarations — Type I environmental labelling — Principles and procedures*

ISO 14025, *Environmental labels and declarations — Type III environmental declarations — Principles and procedures*

ISO 16000-3, *Indoor air — Part 3: Determination of formaldehyde and other carbonyl compounds in indoor and test chamber air — Active sampling method*

ISO 16000-6, *Indoor air — Part 6: Determination of organic compounds (VVOC, VOC, SVOC) in indoor and test chamber air by active sampling on sorbent tubes, thermal desorption and gas chromatography using MS or MS FID*

ISO 16000-9, *Indoor air — Part 9: Determination of the emission of volatile organic compounds from building products and furnishing - Emission test chamber method*

ISO 16000-11, *Indoor air — Part 11: Determination of the emission of volatile organic compounds from building products and furnishing — Sampling, storage of samples and preparation of test specimens*

ISO 17889-1, *Ceramic tiling systems — Sustainability for ceramic tiles and installation materials — Part 1: Specification for ceramic tiles*

ISO 21930, *Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services*

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EN 13284-1, *Stationary source emissions - Determination of low range mass concentration of dust - Part 1: Manual gravimetric method*

ASTM D2369-10,*Standard Test Method for Volatile Content of Coatings*

ASTM D6886-18, *Standard Test Method for Determination of the Weight Percent Individual Volatile Organic Compounds in Waterborne Air-Dry Coatings by Gas Chromatography*

3 Terms, definitions, symbols and abbreviated terms

For the purposes of this document, the terms and definitions given in ISO 17889-1 and the following apply.

ISO and IEC maintain terminology databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 Sustainability

3.1.1
environmental sustainability
state in which the ecosystem and its functions are maintained for the present and future generation

3.1.2
economic sustainability
ability to provide sustainable, successful places in an economic context

Note 1 to entry: Economic considerations include employment, competitiveness, wealth and distribution, welfare, accounting and regulation.

3.1.3
social sustainability
ability to provide sustainable, successful places in a social context

Note 1 to entry: It combines design of the physical realm with design of the world, infrastructure to support social and cultural life, provides social amenities, systems for citizen engagement and spaces for people and places to evolve.

3.1.4
LCA
life-cycle assessment
systematic evaluation of the *environmental impact* (3.2.3) of a product(s) that includes all stages of its life cycle

3.2 Environment

3.2.1
environment
surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation

Note 1 to entry: Surroundings in this context extend from within an organization to the global system.

[SOURCE: ISO 14001:2015, 3.2.1, modified — Note 2 to entry deleted.]

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