SLOVENSKI STANDARD
oSIST prEN 18088:2024

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Hidroizolacijski trakovi - Recikliranje plastike in reciklirana plastika - Plastični hidroizolacijski trakovi

Flexible sheets for waterproofing - Plastics recycling and recycled plastics - Plastic waterproofing sheets

Abdichtungsbahnen - Kunststoffrecycling und recycelte Kunststoffe - Kunststoffbahnen für Abdichtungen

Feuilles souples d'étanchéité - Recyclage des plastiques et plastiques recyclés - Feuilles d'étanchéité en plastique

Ta slovenski standard je istoveten z: **prEN 18088**

ICS:

13.030.50	Recikliranje	Recycling
91.100.50	Veziva. Tesnilni materiali	Binders. Sealing materials

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EUROPEAN STANDARD

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English Version

Flexible sheets for waterproofing - Plastics recycling and recycled plastics - Plastic waterproofing sheets

Feuilles souples d'étanchéité - Recyclage des plastiques et plastiques recyclés - Feuilles plastiques pour l'étanchéité

Abdichtungsbahnen - Kunststoffrecycling und recycelte Kunststoffe - Kunststoffbahnen für Abdichtungen

This draft European Standard is submitted to CEN members for enquiry. It has been drawn up by the Technical Committee CEN/TC 254.

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

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Contents

Page

European foreword

This document (prEN 18088:2024) has been prepared by Technical Committee CEN/TC 254 “Flexible sheets for waterproofing”, the secretariat of which is held by NEN.

This document is currently submitted to the CEN Enquiry.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Introduction

This document is in accordance with the European Commission implementing decision M/584 on a standardization request to the European Committee for Standardization and the European Committee for Electrotechnical Standardization as regards plastics recycling and recycled plastics in support of the European Strategy for Plastics in a Circular Economy.

A plastic waterproofing sheet is an article as identified in article 3 of Regulation (EU) N° 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. Based on current knowledge, plastic waterproofing sheets do not contain SVHC (Substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0,1 % (w/w).

Under the umbrella from the European Union's Waste Framework Directive 2008/98/EC recycling of waste is one type of material recovery process intended to save resources (virgin raw materials, water, and energy), while minimizing harmful emissions into air, water, and soil as well as any impacts on human health. The environmental impact of recycling should be assessed over the whole life cycle of the recycling process.

It might be impossible to trace back each individual product including components of the product at the end user stage and to check whether the product has been used correctly through its life. It is possible that during this period contamination with other materials might occur that could affect the product's suitability for recycling into the intended application.

1 Scope

Plastic waterproofing sheets generate plastic waste at different stages: production, construction process, use and end of life.

This document defines the origin of recyclate made from pre-consumer material and post-consumer material as it is used in new products. These new products can be plastic waterproofing sheets, other sheets, other construction products or other products.

It specifies terms and definitions.

It gives guidance for assessing the recyclates intended for use in the production of new products.

NOTE This document is suitable for products with similar content like: swimming pool membranes, geosynthetic barriers, garden ponds, walk-ways, protection membranes, prefabricated pieces. The design for recycling of packaging, including the recycling itself, is defined in the CEN TC 261 Packaging.

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.

EN 13956, *Flexible sheets for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics*

EN 13967, *Flexible sheets for waterproofing — Plastic and rubber damp proof sheets including plastic and rubber basement tanking sheet — Definitions and characteristics*

EN 14909, *Flexible sheets for waterproofing — Plastic and rubber damp proof courses — Definitions and characteristics*

3 Terms and definitions

For the purposes of this document, the following terms and definitions 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
batch
quantity of material regarded as a single unit, and having a unique reference

3.2
certificate of analysis
CoA
document produced by manufacturers certifying that the product they manufactured conforms to their customer's requirements

Note 1 to entry: A formal certificate of analysis can be replaced by an internal procedure documented in the factory production control (FPC) system for recycling of plastic materials within the same manufacturer location.

3.3
component
constituent of a product that fulfils a specific function

3.4
design for recycling
part of component for which a recovery and recycling scheme exist

3.5
energy recovery
production of useful energy through direct and controlled combustion

3.6
feedstock / chemical recycling
conversion to monomer or production of new raw materials by changing the chemical structure of plastic waste through cracking, gasification or depolymerisation, excluding energy recovery

3.7
flake
plate-like shaped regrind

3.8
granule
small particle produced in many sizes and shapes

3.9
ingredient
part of a compound or component

3.10
mechanical recycling
processing of plastic waste into secondary raw material or products without significantly changing the chemical structure of the material

3.11
micronizing
process by which plastic materials are ground into a fine powder

3.12
pellet
small, rounded, or tube-shaped, compressed mass of a substance, ingredient, or compound

3.13
plastic
material consisting of a polymer, to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified

Note 1 to entry: A definition of polymer can be found in point 5 of Article 3 of Regulation (EC) 1907/2006.

3.14
post-consumer material
descriptive term covering plastics materials generated by the end-users of products that have been placed on the market, which has fulfilled its intended purpose or can no longer be used

3.15
pre-consumer material
descriptive term covering plastic materials diverted during a manufacturing process

Note 1 to entry: This term excludes re-utilized plastic materials, such as rework, regrind or scrap that has been generated in a process and is capable of being reclaimed within the same process.

Note 2 to entry: The same process refers to a repetition of a manufacturing operation or the production of the same type of product that has been already conducted.

3.16
substance
part of an ingredient or compound

3.17
product
physical-based object designed with a specific build-up and specific formulation(s) or utilized with a specific purpose(s)

3.18
recyclate
plastic materials resulting from the recycling of plastic waste, that is no longer waste and can be used for the manufacturing of new articles or products and can be reformulated using additives

Note 1 to entry: As soon as the used plastic material is treated in such a way that it is ready to replace virgin product, virgin raw material or substance in a production process, it loses its characteristics as waste.

3.19
recycled plastic materials
plastic prepared by processing in a production process from plastic waste materials for the original purpose or for other purposes but excluding energy recovery

Note 1 to entry: Recycled plastic materials for conversion into a product, may or may not be reformulated by the addition of fillers, plasticizers, stabilizers, pigments, etc.

3.20
recycling
processing of plastic waste materials for the original purpose or for other purposes, excluding energy recovery

Note 1 to entry: An elaborated definition is available in Directive 2008/98/EC of the European Parliament and of the Council on waste.

Note 2 to entry: In Annex B a schematic diagram of some plastics recovery options (ISO 15270:2008) is enclosed.

3.21
regrind
shredded and/or granulated recovered plastic materials in the form of a free-flowing material

3.22
reworked plastic materials
straightforward re-use of plastics within the same manufacturing process by the original processor and so the plastic materials is of the same formulation as that originally used

3.23
shredding
mechanical process where plastic waste is fragmented into irregular pieces of any dimension or shape

3.25
synthetic material
material created through chemical engineering

Note 1 to entry: Within EN 13956:2012 and EN 13967:2012+A1:2017 three groups of synthetic materials are used in the application of flexible sheets for waterproofing: plastics, rubbers and thermoplastic rubbers. Within EN 14909:2012 materials are grouped as follow: thermoplastics, thermoplastics-elastomers, and elastomers.

3.26
thermoplastic
product with the capability of being softened by heating and hardened by cooling through a temperature range characteristic of the plastic

Note 1 to entry: Typical production technologies are extrusion, calendering, moulding, etc.

3.27
waste
plastic material which the holder discards, or intends to discard, or is required to discard

Note 1 to entry: Waste hierarchy prioritizes waste prevention and management operations: prevention, preparing for re-use, recycling, other recovery, disposal.

Note 2 to entry: In industry the term scrap is often used to indicate discarded material.

4 Typical application systems

Performance requirements shall be declared for the final product for roofing sheets according to EN 13956; for damp proof sheets including basement tanking sheet EN 13967 and for damp proof courses EN 14909.

The typical roofing systems can be divided into distinct categories:

— exposed sheets, covered sheets;

— non-accessible roofs, limited access roofs, accessible roofs for pedestrian or vehicular traffic;

— fully or partially adhered, mechanically fastened, loose laid, and ballasted.

The typical damp-proof sheets can be divided in distinct categories:

— type A: damp proof sheet;

— type V: damp proof ventilating or draining sheet;

— type T: tanking sheet.

All these sheets are installed in a covered application.

The typical damp-proof courses can be divided into distinct categories:

— type A: damp proof courses;

— type V: damp proof courses ventilating or draining.