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Precast concrete products - General rules for
production control of glassfibre reinforced concrete

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

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ICS 91.100.30

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EUROPEAN STANDARD

EN 1169

NORME EUROPÉENNE

EUROPÄISCHE NORM

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Supersedes EN 1169:1999

English Version

Precast concrete products - General rules for production control of glassfibre reinforced concrete

Produits préfabriqués en béton - Règles générales de
contrôle de production des composites ciment-verre

Vorgefertigte Betonerzeugnisse - Allgemeine Regeln
für die werkseigene Produktionskontrolle von
Glasfaserbeton

This European Standard was approved by CEN on 1 December 2024.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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European foreword

This document (EN 1169:2024) has been prepared by Technical Committee CEN/TC 229 “Precast concrete products”, the secretariat of which is held by AFNOR.

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of an identical text or by endorsement, at the latest by June 2025, and conflicting national standards shall be withdrawn at the latest by June 2025.

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

This document supersedes EN 1169:1999.

EN 1169:2024 includes the following significant technical changes with respect to EN 1169:1999:

- clarification of the scope, with precision about what is covered and what is excluded;
- modification of the symbols used in coherence with EN 1170 and EN 15191;
- updated reference to the new EN 1170:2024 as resulting of the revision and merging of parts of the EN 1170 series;
- technical modifications in accordance with EN 1170:2024.

Any feedback and questions on this document should be directed to the users’ national standards body. A complete listing of these bodies can be found on the CEN website.

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Introduction

When developing a GRC composite material, the manufacturer should not only consider the properties required for the specific application but also the requirements of the production processes.

Where a customer is considering using products manufactured from GRC composites, early consultation with GRC manufacturers is recommended.

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1 Scope

This document defines the general processes, procedures and rules for production and production control system (PCS) of glassfibre reinforced concrete (GRC) used to manufacture products commonly used in construction, civil engineering, architecture and other applications.

GRC can be produced from a range of mix designs comprising various materials and manufactured by different processes. This document covers two primary production processes, namely sprayed GRC and premix GRC.

This document does not cover concrete, where the glassfibre does not act as primary reinforcement but is used as an additive. It does not cover but can be used as guidance for injection and extrusion manufacturing processes.

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 1170:2024, *Precast concrete products — Test methods for glassfibre reinforced concrete*

EN 15191:2024, *Precast concrete products — Classification of glassfibre reinforced concrete performance*

EN 15422:2008, *Precast concrete products — Specification of glassfibres for reinforcement of mortars and concretes*

3 Definitions and abbreviation

For the purposes of this document, the terms, definitions, symbols and abbreviated terms given in EN 15191:2024 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 Definitions

3.1.1

additive

product that may be added to the matrix composition to improve some properties

Note 1 to entry: It can be reactive (e.g. silica fumes) or inert, mineral or organic (e.g. polymer dispersions).

Note 2 to entry: Inorganic additives are called additions in EN 206:2013.

[SOURCE: EN 15191:2024]

3.1.2

admixture

constituent added during the mixing process in small quantities related to the mass of cement to modify the properties of fresh or hardened concrete

[SOURCE: EN 206:2013]