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English Version

## Installation rules of fibrous (gypsum) plaster works

Règles d'exécution des ouvrages en staff

Regeln für den Einbau von Formteilen aus  
faserverstärktem Gips

This Technical Report was approved by CEN on 28 May 2011. It has been drawn up by the Technical Committee CEN/TC 241.

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## Foreword

This document (CEN/TR 16239:2011) has been prepared by Technical Committee CEN/TC 241 "Gypsum and gypsum based products", the secretariat of which is held by AFNOR.

This Technical Report is one of a series of European Standards including:

- construction products standards, concerning gypsum and gypsum based products;
- works design standards, providing general principles for the design of works to realize with these products;
- technical reports, providing rules and recommendations for installation of works on site realized with these same products.

NOTE 1 The fibrous plaster products are the subject of the European Standard EN 13815 "Fibrous (gypsum) plaster casts - Definitions, requirements and test methods".

NOTE 2 The principles of design of fibrous plaster works are the subject of the European Standard EN 15319 "General principles of design of fibrous (gypsum) plaster works".

It has been assumed in the draft of this Technical Report that the application of its provisions is entrusted to appropriately qualified and experienced professionals, for whose guidance it has been prepared.

## Introduction

This Technical Report applies to works carried out using fibrous (gypsum) plaster products-traditional and GRG - made by the moulding of thin reinforced gypsum.

The fibrous plaster work is installed by positioning and fastening of these products to the appropriate part of the building construction. Then they are sealed or screwed and jointed to form continuous surfaces without apparent joints.

NOTE The figures used to illustrate this document are intended to make the text easier to understand. Therefore, they shall be taken as indicative and non-restrictive examples of the works described in the text.

## 1 Scope

This Technical Report provides details on the rules and recommendations for the installation of works carried out using fibrous (gypsum) plaster casts as defined in European Standard EN 13815, with instructions and details about construction.

Fibrous (gypsum) plaster casts from the three categories of production below (see 4.1 of EN 13815:2006) should be involved in this Technical Report:

- a) "cpp" allowing regulatory marking CE,
- b) "cppv" allowing regulatory marking CE,
- c) "ipp" either when CE marking is required or without CE marking (see Annex D, note 2 of EN 13815:2006).

There are three products:

- traditional fibrous (gypsum) plaster casts, and two specific products:
- GRG casts,
- PMGRG casts.

NOTE 1 Construction of traditional gypsum plaster works using screwed system, showing similar provisions with GRG works screwed construction, is not dealt in this Technical Report.

NOTE 2 PMGRG works are not dealt in this Technical Report.

There are three ranges of casts, defined by their principal functions shapes and configurations (see 4.2 of EN 13815:2006):

- casts for interior architecture,
- casts for technical functions and
- units.

The equipment, accessories and devices are defined in this document.

This Technical Report applies to both new construction and to the refurbishment, restructuring or conversion of existing buildings.

Fibrous plastering work should be capable of having the usual finishes applied directly to them (e.g. paint, wallpaper), subject to the normal preparatory work applicable for the finish.

This Technical Report should not apply to:

- works consisting of various boards, elements or casts when they are not fibrous (gypsum) plaster casts or fibrous plaster works which, by their nature, do not form an integral part of the structure by the use of permanent fixing (see the scope of EN 15319:2007).
- fibrous plaster works consisting of casts and embellishments, when they are to be applied directly to either new or existing wall or ceiling surfaces, for purely decorative applications (see Figures 3 and 4 of EN 15319:2007); works of these types should be carried out in accordance with standard practice.

This Technical Report does not contain the regulatory requirements with which fibrous plaster works (e.g. ceiling) must comply in certain buildings.

NOTE 3 In the field of safety, most regulations relate to certain types of building for example:

- public buildings (PB),
- high rise buildings (HRB),
- buildings for educational purposes,
- buildings for sanitary purposes.

This Technical Report does not deal with the ability of fibrous plastering works to comply with particular technical requirements (e.g. fire behaviour, protection against noise, energy economy, etc) needed for the works to comply with the requirements of the particular building contract.

## **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 335 (all parts), *Durability of wood and wood-based products — Definition of use classes.*

EN 350 (all parts), *Durability of wood and wood-based products — Natural durability of solid wood.*

EN 351 (all parts), *Durability of wood and wood-based products — Preservative-treated solid wood.*

EN 460, *Durability of wood and wood-based products — Natural durability of solid wood — Guide to the durability requirements for wood to be used in hazard classes.*

EN 573-3, *Aluminium and aluminium alloys — Chemical composition and form of wrought products — Part 3 : Chemical composition and form of products.*

EN 599-2, *Durability of wood and wood-based products — Performance of preventive wood preservatives as determined by biological tests — Part 2 : Classification and labelling.*

EN 1396, *Aluminium and aluminium alloys — Coil coated sheet and strip for general applications — Specifications.*

EN 1611-1, *Sawn timber — Appearance grading of softwoods — Part 1: European spruces, firs, pines and Douglas firs.*

EN 1912, *Structural timber — Strength classes — Assignment of visual grades and species.*

EN 1993-1-1, *Eurocode 3: Design of steel structures — Part 1-1: General rules and rules for buildings.*

EN 1995-1-1, *Eurocode 5: Design of timber structures — Part 1-1: General — Common rules and rules for buildings.*

EN 10143, *Continuously hot-dip coated steel sheet and strip — Tolerances on dimensions and shape.*

EN 10152, *Electrolytically zinc coated cold rolled steel flat products for cold forming — Technical delivery conditions.*

EN 10169, *Continuously organic coated (coil coated) steel flat products - Technical delivery conditions.*

EN 10244-2, *Steel wire and wire products — Non-ferrous metallic coatings on steel wire — Part 2: Zinc or zinc alloy coatings.*

EN 10346, *Continuously hot-dip coated steel flat products - Technical delivery conditions.*

EN 13279-1, *Gypsum binders and gypsum plasters — Part 1: Definitions and requirements.*

EN 13815:2006, *Fibrous gypsum plaster casts — Definitions, requirements and test methods.*

EN 13963, *Jointing materials for gypsum plasterboard — Definitions, requirements and test methods.*

EN 14195:2005, *Metal framing components for gypsum plasterboard systems — Definitions, requirements and test methods.*

EN 14566, *Mechanical fasteners for gypsum plasterboard systems — Definitions, requirements and test methods.*

prEN 15303-1, *Design and application of plasterboard systems on frames — Part 1: General principles of design*

EN 15319:2007, *General principles of design of fibrous (gypsum) plaster works.*

EN ISO 12944-3, *Paints and varnishes — Corrosion protection of steel structures by protective paint systems — Part 3: Design considerations (ISO 12944-3: 1998).*

### **3 Terms, definitions, symbols and abbreviations**

See Clause 3 and Figures 1 and 2 of EN 15319:2007.

### **4 Technical requirements**

See Subclause 4.3 of EN 15319:2007.

### **5 Site installation**

#### **5.1 Conditions required prior to commencing the installation of fibrous plaster works**

See Subclause 5.1 of EN 1531:2007.

#### **5.2 Equipments to be used for fixing to the backgrounds**

##### **5.2.1 Safe loads**

The equipment, accessories and devices described in this subclause are those commonly used. Other materials or procedures may be used, provided that they are suitable to maintain an equivalent level of reliability. The safe loads adopted for the hangers are determined by the test results of breaking loads of these, and application of a safety factor equal to 3.