

# SVENSK STANDARD

## SS-EN 14195:2014



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### **Stålprofiler för gipsskivor i icke bärande konstruktioner – Definitioner, krav och provningsmetoder**

### **Metal framing components for gypsum board systems – Definitions, requirements and test methods**



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The European Standard EN 14195:2014 has the status of a Swedish Standard. This document contains the official version of EN 14195:2014.

This standard supersedes the Swedish Standard SS-EN 14195:2005, edition 1 and SS-EN 14195:2005/AC:2006, edition 1.

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EUROPEAN STANDARD

**EN 14195**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2014

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Supersedes EN 14195:2005

English Version

## Metal framing components for gypsum board systems - Definitions, requirements and test methods

Éléments d'ossature métalliques pour systèmes en plaques  
de plâtre - Définitions, spécifications et méthodes d'essai

Metall-Unterkonstruktionsbauteile für Gipsplatten-Systeme -  
Begriffe, Anforderungen und Prüfverfahren

This European Standard was approved by CEN on 16 August 2014.

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**CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels**

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## Foreword

This document (EN 14195:2014) has been prepared by Technical Committee CEN/TC 241 “Gypsum and gypsum based 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of an identical text or by endorsement, at the latest by June 2015, and conflicting national standards shall be withdrawn at the latest by September 2016.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 14195:2005.

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 Regulation (EU) No. 305/2011.

For relationship with Regulation (EU) No. 305/2011, see informative Annex ZA, which is an integral part of this document.

The main technical changes that have been made in this new edition of EN 14195 are the following:

- a) Normative references have been updated;
- b) Clause 1, Scope, has been enlarged to include profiles, hangers and connectors and boards according to EN 520, EN 14190, EN 15283-1 and EN 15283-2;
- c) Annex ZA and Clause 6 have been revised to be in line with the Construction Products Regulation (CPR);
- d) document has been editorially revised.

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 characteristics of metal framing components (e.g. profiles, hangers and connectors) intended to be used in building construction works in conjunction with gypsum boards manufactured according to EN 520, EN 15283-1 and EN 15283-2 and gypsum board products from reprocessing conforming to EN 14190 where the assembly is non-loadbearing. Such assemblies include, for example, partitions, wall and ceiling linings, ceilings with mechanically fixed boards and the cladding of beams, columns, ducts and shafts.

It covers the following performance characteristics: reaction to fire, flexural (yield) strength and loadbearing capacity of suspension components to be measured according to the relevant test methods as specified or cited in this European Standard.

## 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 10132 (all parts), *Cold-rolled narrow steel strip for heat-treatment*

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 13501-1, *Fire classification of construction products and building elements — Part 1: Classification using test data from reaction to fire tests*

EN 13964:2014, *Suspended ceilings - Requirements and test methods*

EN ISO 6892-1, *Metallic materials - Tensile testing - Part 1: Method of test at room temperature (ISO 6892-1)*

EN ISO 9227, *Corrosion tests in artificial atmospheres - Salt spray tests (ISO 9227)*

EN ISO 16120-2, *Non-alloy steel wire rod for conversion to wire - Part 2: Specific requirements for general-purpose wire rod (ISO 16120-2)*

## 3 Terms and definitions

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

### 3.1 General terms

#### 3.1.1

##### **non-loadbearing element**

element which does not transfer vertical forces and whose contribution to the stability of the building is not taken into account

**3.1.2****metal section**

corrosion protected steel member, cold rolled to form profiles

Note 1 to entry: See examples in Annex C.

**3.1.3****nominal thickness**

thickness of steel stated by the manufacturer of the metal section including metallic surface coating

**3.1.4****core thickness**

thickness of steel excluding surface coating

**3.1.5****flange**

part of section to which gypsum board is usually attached, depending upon the position of the section

Note 1 to entry: See Figure 6.

**3.1.6****web**

central and connecting part of section between flanges of a stud and channel section

Note 1 to entry: See Table C.1.

Note 2 to entry: Some sections have no web, e.g. L.

**3.1.7****nominal width/depth**

width and depth of sections stated by the manufacturer

**3.1.8****bend**

curvature to impart shape and/or strength, for example, between flange and web

Note 1 to entry: See Figures 3, 4, and 5.

**3.1.9****hanger**

component connecting the metal sections to the loadbearing main structure

Note 1 to entry: See Annex D.

Note 2 to entry: Hangers are designated by H.

**3.1.10****connector**

components connecting metal section to metal section

Note 1 to entry: See Annex D.

Note 2 to entry: Connectors are designated by N.

**3.2 Symbols and abbreviations**

For the purpose of simplification in product marking and performance information characteristics may be identified through the symbols and abbreviations given in Table 1.

Table 1 — Symbols and abbreviations

Requirement	Sub-clause	Symbol or abbreviation
Reaction to fire	4.1	R2F
Yield strength	4.2	$\sigma$
Loadbearing capacity of suspension components	4.6.2	L
Dangerous substances	4.3	DS

## 4 Requirements

### 4.1 Reaction to fire

When the intended use of metal components is for situations in building construction works where there is a risk of exposure to fire, metal components shall be classified A1 according to Commission Decision 96/603/EC, as amended, without the need of testing if they contain less than 1 % organic material by weight or volume (whichever is the more onerous).

For the purpose of classification in classes other than class A1, the metal components shall be tested and classified in accordance with EN 13501-1 using mounting and fixing defined in Annex F.

### 4.2 Flexural tensile strength (expressed as yield strength)

The manufacturer shall declare the yield strength of the hot dip coated steel strip to EN 10346, tested in accordance with EN ISO 6892-1 or other equivalent method. The yield strength shall be at least 140 N/mm<sup>2</sup>. If necessary, the design value of the section shall be calculated in accordance with 4.6.

### 4.3 Dangerous substances

National regulations on dangerous substances may require verification and declaration on release, and sometimes content, when construction products covered by this standard are placed on those markets.

In the absence of European harmonized test methods, verification and declaration on release/content should be done taking into account national provisions in the place of use.

NOTE An informative database covering European and national provisions on dangerous substances is available at the Construction website on EUROPA accessed through: <http://ec.europa.eu/enterprise/construction/cpd-ds/>

The corrosion protection coating shall not contain hexavalent chromium [Cr (VI)].

### 4.4 Materials

Metal framing components shall be manufactured from mild steel strip having a protective coating conforming to EN 10346 or EN 10132. For suspension wires EN ISO 16120-2 and EN 10244-2 are relevant. For spring steel EN 10132 applies.

The protective coating shall conform or be equivalent to one of the classes given in Table 2. The equivalence shall be proved by salt spray test according to EN ISO 9227 until the first appearance of red rust.