EUROPEAN ASSESSMENT DOCUMENT

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GYPSUM ELEMENTS FOR INTERNAL WALL FINISHES

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1 SCOPE OF THE EAD

1.1 Description of the construction product

This European Assessment Document applies to decorative, non-load bearing gypsum elements for internal wall finishes. Gypsum elements are stone-imitating and brick-imitating elements made of gypsum which contains no more than 1,0% (by weight or by volume) of homogeneously distributed organic material. They can be pigmented or not.

The product is not covered by a harmonised European standard (hEN).

Concerning product packaging, transport, storage, maintenance, replacement and repair it is the responsibility of the manufacturer to undertake the appropriate measures and to advise his clients on the transport, storage, maintenance, replacement and repair of the product as he considers necessary.

It is assumed that the product will be installed according to the manufacturer's instructions or (in absence of such instructions) according to the usual practice of the building professionals.

Relevant manufacturer's stipulations having influence on the performance of the product covered by this European Assessment Document shall be considered for the determination of the performance and detailed in the ETA.

1.2 Information on the intended use(s) of the construction product

1.2.1 Intended use(s)

Gypsum elements are intended to be used indoor, in low humidity, with no exposure to water, as a decorative covering of walls.

1.2.2 Working life/Durability

The assessment methods included or referred to in this EAD have been written based on the manufacturer's request to take into account a working life of gypsum elements for internal wall finishes for the intended use of 25 years when installed in the works (provided that the gypsum elements are subject to appropriate installation (see 1.2.1). These provisions are based upon the current state of the art and the available knowledge and experience.

When assessing the product the intended use as foreseen by the manufacturer shall be taken into account. The real working life may be, in normal use conditions, considerably longer without major degradation affecting the basic requirements for works[1].

The indications given as to the working life of the construction product cannot be interpreted as a guarantee neither given by the product manufacturer or his representative nor by EOTA when drafting this EAD nor by the Technical Assessment Body issuing an ETA based on this EAD, but are regarded only as a means for expressing the expected economically reasonable working life of the product.

[1] The real working life of a product incorporated in a specific works depends on the environmental conditions to which that works is subject, as well as on the particular conditions of the design, execution, use and maintenance of that works. Therefore, it cannot be excluded that in certain cases the real working life of the product may also be shorter than the assumed working life.

2 ESSENTIAL CHARACTERISTICS AND RELEVANT ASSESSMENT METHODS AND CRITERIA

2.1 Essential characteristics of the product

Table 1 shows how the performance of gypsum elements for internal wall finishes is assessed in relation to the essential characteristics.

Table 1: Essential characteristics of the product and methods and criteria for assessing the performance of the product in relation to those essential characteristics

No	Essential characteristic	Method of verification and assessment	Type of expression of product performance
Basic Works Requirement 2: Safety in case of fire			
1	Reaction to fire	2.2.1	Class
Basic Works Requirement 4: Safety and accessibility in use			
2	Compression strength	2.2.2	Level
3	Bending strength	2.2.3	Level
4	Dimensions	2.2.4	Description
5	Dry density	2.2.5	Level
6	Moisture content	2.2.6	Level

2.2 Methods and criteria for assessing the essential characteristics of the product in relation to essential characteristics of the product

2.2.1 Reaction to fire

Gypsum elements which contain no more than 1,0% (by weight or by volume) of homogeneously distributed organic material are considered to satisfy the requirements for performance class A1 of the characteristic reaction to fire, in accordance with the Commission Decision 96/603/EC without the need for testing on the basis of it fulfilling the conditions set out in that Decision and its intended use being covered by that Decision.
The class A1 is to be given in the ETA.

2.2.2 Compression strength

Compression strength shall be determined according to EN 1015-11. The value of the compression strength of gypsum elements is to be given in the ETA.

2.2.3 Bending strength

Bending strength shall be determined according to EN 1015-11. The value of the bending strength of gypsum elements is to be given in the ETA.

2.2.4 Dimensions

The nominal values of length, width and thickness of gypsum elements is to be given in the ETA.

2.2.5 Dry density

Dry density shall be determined according to EN 12859. The value of the density of gypsum elements is to be given in the ETA.

2.2.6 Moisture content

Moisture content shall be determined according to EN 12859. The value of the moisture content of gypsum elements shall be given in the ETA.

3 ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE

3.1 System(s) of assessment and verification of constancy of performance to be applied

For the products covered by this EAD the applicable European legal act is: Decision 98/437/EC.
The system is: 3.

3.2 Tasks of the manufacturer

The cornerstones of the actions to be undertaken by the manufacturer of gypsum elements in the procedure of assessment and verification of constancy of performance are laid down in Table 2.

Table 2: Control plan for the manufacturer, cornerstones

No	Subject/type of control	Test or control method	Criteria, if any	Minimum number of samples	Minimum frequency of control
Factory production control (FPC)					
1	Raw material	According to delivery documents		–	Every delivery
2	Dimensions	Size check	Laid down in control plan	5	Every batch
3	Appearance (of all varieties)	Visual examination	Laid down in control plan	–	Every batch
4	Compression strength	EN 1015-11	2.2.2	–	Once a year
5	Bending strength	EN 1015-11	2.2.3	–	Once a year

4 REFERENCE DOCUMENTS

As far as no edition date is given in the list of standards thereafter, the standard in its current version at the time of issuing the European Technical Assessment, is of relevance.

EN 1015-11	Methods of test for mortar for masonry – Determination of flexural and compressive strength of hardened mortar
EN 12859	Gypsum blocks – Definitions, requirements and test methods
EN 13501-1	Fire classification of construction products and building elements – Part 1: Classification using data from reaction to fire tests