



EUROPEAN ASSESSMENT DOCUMENT

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FULLY SUPPORTED COPPER ALLOY SHEET AND STRIP FOR ROOFING, EXTERNAL CLADDING AND INTERNAL LINING

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This European Assessment Document (EAD) has been developed taking into account up-to-date technical and scientific knowledge at the time of issue and is published in accordance with the relevant provisions of Regulation (EU) No 305/2011 as a basis for the preparation and issuing of European Technical Assessments (ETA).

Contents

1	Scope of the EAD.....	4
1.1	Description of the construction product	4
1.2	Information on the intended use(s) of the construction product	4
1.2.1	Intended use(s).....	4
1.2.2	Working life/Durability.....	4
2	Essential characteristics and relevant assessment methods and criteria.....	5
2.1	Essential characteristics of the product	5
2.2	Methods and criteria for assessing the performance of the product in relation to essential characteristics of the product	5
2.2.1	Reaction to fire	5
2.2.2	External fire performance of roofs.....	5
2.2.3	Water permeability	6
2.2.4	Water vapour and air permeability	6
2.2.5	Dimensional change.....	6
2.2.6	Durability.....	6
3	Assessment and verification of constancy of performance	6
3.1	System of assessment and verification of constancy of performance to be applied	6
3.2	Tasks of the manufacturer	6
4	Reference documents	7

1 SCOPE OF THE EAD

1.1 Description of the construction product

The construction product is copper alloy sheet or strip for roofing, external cladding and internal lining. The product is an alloy of copper with aluminium and zinc, with a thin protective oxide layer. The designation of the product is CuAl5Zn5Sn1 specified in ETA. Due to the composition of the alloy the product does not develop coloured patina under normal atmospheric conditions.

The product is delivered as flat sheets and strips. The product is non-coated.

The product is not covered by a harmonised European standard (hEN). EN 14783 cannot be applied because it only covers copper grade Cu-DHP.

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)

Product is used as fully supported roofing, external cladding and internal lining in buildings.

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 the copper alloy sheet or strip for the intended use of 50 years when installed in the works. 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 works¹.

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 referred to above.

2 ESSENTIAL CHARACTERISTICS AND RELEVANT ASSESSMENT METHODS AND CRITERIA

2.1 Essential characteristics of the product

Table 1 shows how the performance of copper alloy sheet or strip 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	Assessment method	Type of expression of product performance
Basic Works Requirement 2: Safety in case of fire			
1	Reaction to fire	2.2.1	class
2	External fire performance of roofs	2.2.2	description
Basic Works Requirement 3: Hygiene, health and the environment			
3	Water permeability	2.2.3	description
4	Water vapour and air permeability	2.2.4	description
5	Dimensional change	2.2.5	level
6	Durability	2.2.6	level

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

2.2.1 Reaction to fire

The copper alloy sheet and strip is considered to satisfy the requirements for performance class A1 of the characteristic reaction to fire, in accordance with the provisions of EC Decision 96/603/EC (as amended) 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.

Therefore the performance of the product is A1.

Note: A European reference fire scenario has not been laid down for façades. In some Member States, the classification of the product as above might not be sufficient for the use in façades. An additional assessment according to national provisions (e.g. on the basis of a large scale test) might be necessary to demonstrate the compliance with Member State regulations or administrative provisions.

2.2.2 External fire performance of roofs

The roof (including the complete roof covering) in which the copper alloy sheet or strip is intended to be incorporated, installed or applied is considered to satisfy the requirements for performance class B_{ROOF(t1)} - B_{ROOF(t4)} of the characteristic external fire performance in accordance with the EC Decision 2000/553/EC without the need for further testing on the basis of it fulfilling the conditions set out in that Decision and its intended use being covered by that Decision.

2.2.3 Water permeability

Water permeability shall be determined according to EN 14783:2013 clause 4.3.

The water permeability shall be given in ETA.

2.2.4 Water vapour and air permeability

Water vapour permeability shall be determined according to EN 14783:2013 clause 4.6.

The water vapour permeability shall be given in ETA.

2.2.5 Dimensional change

Declaration according to EN 14783:2013 clause 4.4.

2.2.6 Durability

Declaration according to EN 14783:2013 clause 4.8.

3 ASSESSMENT AND VERIFICATION OF CONSTANCY OF PERFORMANCE

3.1 System 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 1998/437/EC

The system is: 4.

3.2 Tasks of the manufacturer

The cornerstones of the actions to be undertaken by the manufacturer of the product 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) [including testing of samples taken at the factory in accordance with a prescribed test plan]*					
1	Water permeability	2.2.4	2.2.4	-	Continuous
2	Water vapour and air permeability	2.2.5	2.2.5	-	Continuous
3	Dimensions and tolerances	2.2.7	2.2.7	-	Continuous
4	Hardness	2.2.9	2.2.9	1	Each coil

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 14783:2013 Fully supported metal sheet and strip for roofing, external cladding and internal lining – Product specification and requirements