(FINAL)

EUROPEAN COMMISSION
DIRECTORATE-GENERAL III
INDUSTRY
Industrial affairs II: Capital goods industries
Construction

(CONSTRUCT 00/409 revised)

MANDATE TO EOTA
CONCERNING THE EXECUTION OF HARMONISATION WORK
FOR AN ETA GUIDELINE ON

EXPANSION JOINTS FOR ROAD BRIDGES

RELATED TO THE FOLLOWING END USE :

Road bridges

FOREWORD

This mandate is issued by the Commission to EOTA within the context of the Council Directive 89/106/EEC of December 21, 1988 concerning construction products, hereafter referred to as "the Directive" and the Commission Decision 94/23/EC of 17 January 1994 on common procedural rules for European technical approval.

One of the aims of the Directive being the removal of technical barriers to trade in the construction field, in so far as they cannot be removed by means of mutual recognition among Member States, it seems appropriate that mandates cover, at least during a first phase of the mandating programme, construction products likely to be subject to technical barriers to trade.

This mandate covers the field of products or families of products that are considered innovative and for which there is neither a harmonised standard, nor a recognised national standard, nor a mandate for a harmonised standard and for which the Commission, after consulting the Standing Committee on Construction, considers that a harmonised standards cannot, or not yet, be elaborated; or when harmonised standards or recognised national standards exist, the products differ significantly from them.

This mandate intends to lay down provisions for the development and the quality of the ETA guidelines in order, on the one hand, to make "approximation" of national laws, regulations and administrative provisions (hereafter referred to as "regulations") possible and, on the other hand, to allow products conforming to them to be presumed to be fit for their intended use, as defined in the Directive.

In this respect, this mandate takes account of the basic principles prevailing in the regulations of Member States, particularly those described in chapters 3 and 4.2 of the Interpretative Documents, to which ETA guideline writers must refer. As stated by the Directive, the responsibility Member States have for construction works on their territory remains unchanged.

In order to fulfil the provisions of article 7.1 of the Directive 89/106/EEC the present mandate has been structured in the following way:

Chapter I Grounds. General conditions within the framework of the Directive 89/106/EEC.

Chapter II Execution of the mandate. Conditions regarding the programming, development and execution of the work on the guidelines.

Chapter III ETA Guidelines. Conditions regarding the content and the presentation of the ETA guidelines.

CHAPTER I. GROUNDS

1. This mandate falls within the framework of the general policy of the Commission with respect to technical harmonisation and standardisation, as well as within the scope of the Directive. It replaces any previous mandate on the same products formerly issued on a provisional base by the Commission.

2. This mandate is based on article 11 of the Directive and has taken into consideration the Interpretative Documents[(2)] that serve as reference for the establishment of guidelines for ETAs. It serves to ensure the quality of ETA Guidelines for products, always with reference to the state of the art, with particular reference to the fitness of the products listed in annex 1 intended to be used for the construction of **ROAD BRIDGES**

enabling the works to satisfy the essential requirements set out in annex 1 of the Directive, provided that barriers to trade in these products exist and that the products fall within the scope of article 2.1 of the Directive;

3. Levels or classes of requirements for the works are under the responsibility of Member States and are not covered by the present mandate. As a consequence, they are not expected to be defined in the ETA guideline.

4. Levels or classes of requirements for the products may be determined either in the Interpretative Documents or according to the procedure provided for in article 20 (2) of the Directive. In either case, where levels or classes of requirements for products are determined, guidance is given in Annex 3 to this mandate. This is not the case for classes of convenience, which are classes of product performances developed as a means of convenience for specifiers, manufacturers and purchasers. Such classes of convenience are not covered by the present mandate and should not be defined within the ETA guideline.

5. The ETA guideline resulting from this mandate must allow products to comply with it even where performance does not need to be determined for a certain characteristic, because ate least one Member State has no legal requirement at all for such a characteristic. Declaration of performance for such characteristic must not be imposed on the manufacturer if he does not wish to declare it.

6. Indications regarding the documents which should be taken into account to inform technical specification writers and manufacturers on national and harmonised legislation on substances classified as dangerous are given in Annex 4.

CHAPTER II. EXECUTION OF THE MANDATE

1. EOTA will present the Commission with a detailed work programme, at the latest, by the end of **three months after positive opinion from the Standing Committee on Construction.**

2. This programme will include all aspects considered necessary to ensure the quality of the ETA guideline and the subsequent ETAs in order to permit the assessment of the fitness for use (in accordance with Article 4 (2) of the Directive) of the products covered by the mandate. In particular it will contain the following:

- a) the title of the ETA guideline;

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(2) O.J N°C 62, 28.02.1994

- b) the content of the guideline, including reference to those items mentioned in III.2;

- c) the list of supporting documents (national standards, ISO standards, prENs, ENs, research results, etc.) which might be used in the ETAs and indications of those documents that have to be developed by EOTA;

- d) the timetable for the development of the guideline and its submission to the EC; and

- e) the identification of the Working Group responsible;

3. Clear differentiation should be made between the item to become the ETA guideline for the product or product family and the items to be used as supporting documents.

4. Where practicable, EOTA will make reference existing harmonised methods of assessment. When a supporting test method for a characteristic does not exist or is not in the work programme of the EOTA WG, a clear statement should be presented indicating whether EOTA is able to produce one or not.

5. Any proposals for the addition of products, intended uses and materials and forms not included in the mandate but considered relevant by the EOTA WG should be presented separately from the work programme for further analysis by the Commission services. Guidelines prepared for products outside of this mandate will not achieve the status of ETA guidelines. In addition to the provisions of article 4.1 of the Directive 89/106/EEC, it must be taken into account that all the products included in the mandate have a system of attestation of conformity in accordance with the relevant Decision of the Commission; those products not included have not.

6. Any proposal for the addition of characteristics and durability aspects not included in the mandate but considered relevant by the EOTA WG should be proposed in a special chapter of the work programme for further analysis by the Commission services.

7. Where a classification system of the product performances is envisaged in Annex 3 of the present mandate, EOTA is requested to make an appropriate proposal for its implementation.

8. EOTA WGs must give a technical answer for the determination of the characteristics of the mandate taking into account the conditions stated below; test methods suggested must be directly related to the characteristic required and must not make reference to determination methods for characteristics not required by the mandate. Durability requirements should be dealt with in the framework provided by the current state of the art.

9. Reference to test/calculation methods must be in accordance with the harmonisation aimed at. In general, only one method should be referred to for the determination of each characteristic, for a given product or family of products.

If, however, for a product or family of products because of justifiable reasons, more than one method is to be referred to for the determination of the same characteristic, the situation must be justified. In this case all referenced test methods should be linked by the conjunction "or" and an indication of application should be given.

In any other case, two or more test/calculation methods for the determination of one characteristic can be accepted only if a correlation between them exists or can be developed. The relevant ETA Guideline must then select one of them as the method of reference.

Testing and/or calculation methods shall have, whenever possible, a horizontal character covering the widest possible range of products

10. Within the work programme, EOTA will also specify those cases where the performance-based approach will not be followed in the ETA guideline and will give the relevant justification.

11. After examination of the work programme and consultations with EOTA, the Commission services will endorse the timetable and the list of guidelines which meet the terms of this mandate and which will be recognised as ETA guidelines, as well as the list of supporting standards where relevant.

12. The terms of reference of this mandate may be subject to possible modification or addition, if necessary. Acceptance of the work programme by the Commission services does not imply acceptance of all the items listed as supporting documents. EOTA WGs will need to demonstrate the direct link between items for harmonisation and the products, intended uses and characteristics given in the mandate. Nor does acceptance exclude the possibility for further items to be added by EOTA in order to fully respond to the terms of the mandate

13. Representatives of the authorities responsible for national regulations have the right and will be able to participate in the activities of EOTA through their national approval bodies and to present their points of view at all stages of the drafting process of the guidelines.

14. The Commission may participate in the drafting process as observer and has the right to receive all relevant documents.

15. EOTA will immediately inform the Commission of any problem relating to the carrying out of the mandate from within the WGs and will present an annual progress report on work within the framework of the mandate.

16. The progress report will include a description of work carried out and information on any difficulties being met, whether political or technical, with particular reference to those that might lead the authorities of a Member State to raise objections or to resort to article 5.1 of the Directive.

17. The progress report will be accompanied by the latest drafts of the guideline under the mandate and by updated reports on any subcontracted work.

18. Acceptance of this mandate by EOTA can take place only after the work programme has been endorsed by the Commission.

20. EOTA will develop the draft ETA guideline on the basis of the work programme.

21. EOTA will present the final drafts of the ETA guidelines to the Commission for confirmation of compliance with this mandate at the latest in accordance with the timetable agreed between EOTA and the Commission and referred to in point II.2.d).

22. In order to permit compliance with provisions of article 11.3 of the C.P.D., EOTA will provide the Commission with the ETA guideline, in accordance with the timetable agreed between EOTA and the Commission and referred to in point II.2.d), after a positive vote in EOTA.

CHAPTER III. ETA GUIDELINES

1. ETA guidelines shall be prepared to allow those products listed in Annexes 1 and 2 to be able to be granted an ETA and demonstrate the satisfaction of the essential requirements One of the purposes of the Directive being to remove barriers to trade, the guidelines deriving from it will therefore be expressed, as far as practicable in performance terms (art. 7.2 of the Directive), having regard to the Interpretative Documents..

2. The ETA guideline should contain provisions concerning the following, in particular:

- a detailed scope and field of application;
- a detailed description of the product or family of products and the relevant intended uses to be covered, according to Annexes 1 and 2;
- the classification systems and levels for the above characteristics, if required by the mandate;
- a list of the relevant Interpretative Documents referred to in Article 3 (3) of the Directive 89/106/EEC;
- the specific characteristics of the products within the meaning of the essential requirements referred to in Article 3 (1) of the Directive 89/106/EEC, as expressed in Annex 2;
- the test, assessment or calculation procedures;
- methods of assessing and judging the results of the tests;
- the inspection and conformity procedures within the meaning of Articles 13, 14 and 15 of the Directive 89/106/EEC, which must correspond to those expressed in Annex 3;
- the period of validity of the European technical approvals to be issued under the guideline.

As indicated in I.7, testing and/or calculation methods shall have, whenever possible, a horizontal character covering the widest possible range of products.

3. A minimum or a maximum level of a given characteristic that has to be met by family of products or a product may be identified by the guideline only if required by an agreement of Member States expressed by positive vote under the procedure of article 20

4. As far as possible, the guideline will make reference to performances common to other existing guidelines, and harmonised standards where appropriate, developed under mandates so as to constitute a cohesive and compatible group of European technical specifications. EOTA shall ensure consistency within the whole package of ETAs in the field concerned.

5. With regard to the so called "classes of convenience", which are classes of product performance developed as a means of convenience for specifiers, manufacturers and purchasers, such classes may be used for a standardised presentation of declared values in the ETAs but in such a way that they could never lead to the application of Article 6 (3)

6. The ETA guideline must permit all construction products within its scope, which allow works to meet the essential requirements and which are produced and used lawfully in accordance with technical experience adapted to local, climatological and other conditions, to be granted ETAs and be placed on the market.

7. The essential requirements being expressed in terms of performance of the works, the characteristics of the products should be also expressed, as far as practicable, in terms of performance so that, in referring to the EOTA technical specifications, regulations may "approximate" evolving in terms of "performance requirements". As far as practicable and depending on the intended use mentioned in the annexes of this mandate, the guideline shall include a definition of the durability in term of performance of the declared values of the product

characteristics, as well as suitable methods for its evaluation against the actions listed in Annex 2. If the durability is expressed in terms of classes of periods, articles 3.2 and 6.3 of the Directive 89/106/EEC will not apply.

8. The relevant systems for attestation of conformity according to Article 13.3 and Annex III of the Directive, are listed in annex 3. For the establishment of the corresponding specific provisions of evaluations of conformity, the EOTA guideline will take into account:

- the different intended uses of the product mentioned in the annexes of this mandate and, if any, the different levels or classes of performance;

- cases of individual (non series) production according to Article 13.5 of the Directive;

- the recommendations of paragraph 3 of Annex 3

9 The label accompanying the CE marking will list all the characteristics to be declared according to the declared intended uses mentioned in the annexes of this mandate. In order to take into account existing regulations on products where performance for one or more characteristics may not be required, the label should allow the manufacturer the application of the "No performance determined" case for that or those characteristics.

FIELD OF APPLICATION

EXPANSION JOINTS FOR ROAD BRIDGES

TO BE USED IN :
Road bridges

FORM	MATERIALS	PRODUCTS/KITS FOR CONSIDERATION
Components	E.g. Metal Composites Plastics Rubber Cementitious Bituminous Resin Polymers Mastics	**Expansion joints for road bridges[1], type:** Buried expansion joint Flexible expansion joint Nosing expansion joint Mat expansion joint Cantilever expansion joint Supported expansion joint Modular expansion joint etc.

[1] Expansion joints used in moveable bridges and railway bridges are not covered by this mandate (but could be covered in a separate mandate in the future should there be a need).

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ANNEX 2

TECHNICAL TERMS OF REFERENCE

Note: not all of the characteristics shown in the following tables will be relevant for every product in a particular family or sub-family. EOTA should select the subset of characteristics applicable to a particular product from the full set provided.

EXPANSION JOINTS FOR ROAD BRIDGES

TO BE USED IN :
Road bridges

FAMILY AND SUBFAMILIES

EXPANSION JOINTS FOR ROAD BRIDGES

The expansion joints for road bridges are used to ensure the continuity of the running surface, the continuity of the traffic bearing capacity and to accommodate the movement of the bridges, independent of the nature of the constitutive material (e.g. concrete or steel) of the structure.

Expansion joints are considered to be products or kits which may include connecting devices to the structure, drain, upstand (component to cover change of level) and ancillaries.

E.g. the following different types: Buried expansion joint, flexible expansion joint, nosing expansion joint, mat expansion joint, cantilever expansion joint, supported expansion joint**,** modular expansion joint.

Brief descriptions of some types of expansion joints (others may exist):

1. BURIED EXPANSION JOINT
This expansion joint is formed in situ using components such as waterproofing membranes or an elastomeric pad, to distribute the deformations to a greater width and to support the surfacing which is continuous over the deck joint gap. The components of the expansion joint are non-flush with the running surface.

2. FLEXIBLE EXPANSION JOINT
An in situ poured joint comprising a band of specially formulated flexible material (binder and aggregates), which also forms the surfacing, supported over the deck joint gap by thin metal plates or other suitable components. The joint material is flush with the running surface.

3. NOSING EXPANSION JOINT
This expansion joint has lips or edges prepared with concrete, resin mortar or elastomeric. The gap between the edges is filled by a prefabricated flexible profile, which is non-flush with the running surface.

4. MAT EXPANSION JOINT
This expansion joint uses the elastic properties of a prefabricated elastomeric strip or pad to allow the expected movements of the structure. The strip is fixed by e.g. bolts to the structure. The joint element is flush with the running surface.

5. CANTILEVER EXPANSION JOINT
This expansion joint consists of cantilever symmetrical and non-symmetrical elements (such as comb or saw-tooth plates), which are anchored on one side of the deck joint gap and interpenetrated to bridge the deck joint gap. The elements are flush with the running surface.

6. SUPPORTED EXPANSION JOINT
This expansion joint consists of one element flush with the running surface, which is fixed by hinges on one side and sliding supports on the other side (by a second element), and which spans the deck joint gap. The expected structure movement is allowed through sliding on the non-fixed side of the hinged element, i.e. on the supporting element that is anchored to the substructure.

7. MODULAR EXPANSION JOINT
This expansion joint consists of watertight elements comprising movement controlled metal beams that are supported by moveable substructures bridging the structural gap. The metal beams are flush with the running surface.

Characteristics to be covered by the ETA Guideline will be :

E R	PERFORMANCE CHARACTERISTICS	DURABILITY
1	**Mechanical resistance** *(e.g. to static and dynamic loads, …, as relevant)* **Seismic behaviour** **Movement capacity** **Cleanability** **Resistance to wear** **Resistance to fatigue** **Water tightness**	Y (against corrosion, ageing, chemicals, high and low temperature, UV radiation, ozone, freeze-thaw, …, as relevant)
2		
3	**Release of dangerous substances***	
4	**Skid resistance** **Ability to bridge gaps and levels in the running surface** **Drainage capacity**	
5	**Noise generation**	
6		

* in particular, those dangerous substances defined in Council Directive 76/769/EEC, as amended.

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ANNEX 3

ATTESTATION OF CONFORMITY

Product family : **expansion joints for road bridges**

1. Levels and classes for product performances

1.1 No risks, for which the need for classification systems would be necessary, have been identified for the time being.

Further needs may be identified on the basis of differences specified in Article 3 (2) of the Directive 89/106/EEC (CPD), which are justified in conformity with Community law (IDs Clause 1.2.1).

Where for such needs it is recognised that a classification of product performance is the means of expressing the range of requirement levels of the works, the Commission will give the appropriate guidance or will request EOTA to make the appropriate proposal through a modification to this mandate.

2. Systems of attestation of conformity

For the product(s)and intended use(s) listed below, EOTA are requested to specify the following system(s) of attestation of conformity in the relevant ETA Guideline(s) :

Product(s)	Intended use(s)	Level(s) or class(es)	Attestation of conformity system(s)
Expansion joints for road bridges	in road bridges	-	**1**
System 1: See Directive 89/106/EEC (CPD) Annex III.2.(i), without audit-testing of samples.			

3. Conditions to be applied by EOTA on the specifications of the attestation of conformity system

3.1 The specification for the system should be such that it can be implemented even where performance does not need to be determined for a certain characteristic, because at least one Member State has no legal requirement at all for such characteristic [*see the "no performance determined" case under Article 2.1 of the Directive 89/106/EEC (CPD) and when article 3.2 classes apply, clause 1.2.3 of the Interpretative Documents*]. In those cases the verification of such a characteristic must not be imposed on the manufacturer if he does not wish to declare the performance of the product in that respect.

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ANNEX 4

DANGEROUS SUBSTANCES

Product family : **expansion joints for road bridges**

European Technical Specifications must be adopted taking into account the necessary legislation on substances classified as dangerous.

This results from the Interpretative Documents, where it is noted in the introduction note to all six Interpretative Documents, that :

"Concerning dangerous substances which are in construction products, classes and/or levels of performance to which technical specifications will refer, shall allow the levels of protection needed by the works to be guaranteed, taking into account the purpose of the works."

In addition, outside the scope of the Directive, writers of technical specifications must take into account legislation which affects material to be used for construction products, and which are regulated for reasons not related to the incorporation into the works of the construction products.

In order to permit technical specification writers to take into account the necessary legislation, a working document was elaborated by the Commission services (doc. CONSTRUCT 95/148 Rev.1 of January 4, 1996). This document has been updated and replaced by CONSTRUCT 99/348 (three parts). Furthermore, guidance paper **H** has been elaborated by the Commission, with the title "A harmonised approach relating to dangerous substances under the construction products directive". The guidance paper makes a link to a database, which is based on the two CONSTRUCT documents mentioned above, that contains information about Community and national provisions on dangerous substances (to be found at the Construction web site "CREATE" on EUROPA, accessed through http://europa.eu.int). Specification writers should use this database as a guide but must also take account of any other relevant legislation or dangerous substances, which the database does not yet include.