

ANNEX 21

SUPPLY AND CONTROL DOCUMENTATION

1. Documentation prior to supply

The supplier must provide the relevant documentation as laid down in Section 79.3.1 of this Code and as detailed below.

1.1 Documentation of quality mark

Where applicable, a statement signed by a physical person suitably qualified to do so, which must contain at least the following information:

- Identification of the certifying body
- Logo of the quality mark
- Identification of the manufacturer
- Scope of the certificate
- Guarantee that remains covered by the mark (level of certification)
- Certificate number
- Date of issue of certificate

The existence of an officially recognised quality mark, pursuant to the provisions laid down in this Code, may reduce the documentation required in this Annex.

1.2 Other documentation

1.2.1 Cements

The documentation to be submitted shall comply with the relevant regulation in force.

1.2.2 Water

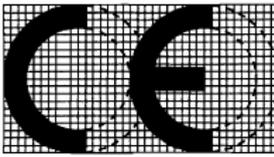
In the case of water not previously used or arising from the cleaning of the tanks in the concreting plants, a test certificate shall be issued guaranteeing that all of the specifications laid down in Article 27 of this Code have been met.

The document shall also contain:

- Name of laboratory
- A declaration from the laboratory that it is accredited, pursuant to Standard UNE EN ISO/IEC 17025, to carry out the test in question, in the case of laboratory that is not a public laboratory, as covered in Section 78.2.1.1, .
- Date of issue of certificate

1.2.3 Aggregates

Where applicable, the documentation required by the CE marking shall be provided. The figure shows a model example of a label for the market.



01234

Empresa, Apartado de correos 21, B-1050

02

0123-CPD-0456

EN 12620

Áridos para hormigón

| | | |
|---|--|---|
| Forma de las partículas | Valor declarado | (IL) |
| Tamaño de las partículas | Denominación | (d/D) |
| Densidad de partículas | Valor declarado | (Mg/m ³) |
| Limpieza | | |
| Calidad de los finos | Cumple / no cumple el valor umbral y categoría | (%) (AM, EA) |
| Contenido en conchas | Categoría | (p.e., CC ₁₀) |
| Resistencia a la fragmentación y machaqueo | Categoría | (LA ₁₅) |
| Resistencia al pulimento | Categoría | (CPA ₅₀) |
| Resistencia a la abrasión | Categoría | (CAA ₁₀ , A _{R30}) |
| Resistencia al desgaste | Categoría | (M _{DB20}) |
| Composición / contenido: | | |
| Cloruros | Valor declarado | (% C) |
| Sulfatos solubles en ácido | Categoría | (p. e., AS _{0,2}) |
| Azufre total | Cumple / no cumple el valor umbral | (% S) |
| Componentes que alteran la velocidad de fraguado y endurecimiento del hormigón | Cumple / no cumple el valor umbral | (Tiempo de fraguado en minutos y resistencia a la compresión S %) |
| Contenido en carbonatos | Valor declarado | (% CO ₂) |
| Estabilidad en volumen | | |
| Retracción por secado | Cumple / no cumple el valor umbral | (% WS) |
| Componentes que alteran la estabilidad en volumen de las escorias de a.h. enfriadas por aire | Valor declarado | (aspecto) |
| Contenido en carbonatos | Valor declarado | (% CO ₂) |
| Absorción de agua | Valor declarado | (% WA) |
| Emisión de radioactividad | Valor declarado a petición | |
| Liberación de metales pesados | } Valor umbral válido en el lugar de uso | |
| Liberación de carbonos poliaromáticos | | |
| Liberación de otras sustancias peligrosas | Por ejemplo, sustancia X: 0,2 µm ³ | |
| Durabilidad frente al hielo y deshielo | Valor declarado | (H o SM) |
| Durabilidad frente a la reactividad álcalf-sílice | Valor declarado a petición | |

In the case of self-consuming aggregates, a test certificate shall be issued guaranteeing that all of the specifications mentioned in the CE marking have been met. The documentation shall also contain:

- Identification of the laboratory carrying out the abovementioned tests.
- In the case of a laboratory that is not a public laboratory covered in Section 78.2.1.1, a statement from the laboratory that it is accredited, pursuant to Standard UNE EN ISO/IEC 17025, to carry out the abovementioned test.
- Date of issue of the certificate
- Guaranty that the statistical analysis meets that required in the CE marking.
- For aggregates that do not comply with the grading set defined in Section 28.4.1 a study of the fines justifying their use on a trial basis must be provided.

1.2.4 Admixtures

The document required by the CE marking shall be forwarded. The figure shows a model example of a label for the market.

| |
|---|
| CE |
| 0123-CPD-0001 |
| AnyCo Ltd, PO Box 21, B-1050 |
| 00 |
| 0123-CPD-0456 |
| EN 934-2 |
| Aditivo para hormigón Reductor de agua de alta actividad superplastificante EN 934-2:T3.1/3.2 |
| Contenido máximo en cloruros , en masa Contenido máximo en alcalinos , en masa Comportamiento a la corrosión ¹⁾ : NEN 3532 |
| Sustancias peligrosas X: menor que ppm |
| ¹⁾ Solamente se requiere cuando se coloca en el mercado de un miembro nacional con reglamentaciones sobre esta materia. |

1.2.5 Additions

Where applicable, the documentation required by the CE marking shall be forwarded. The figure shows a model example of a label for the market.

| |
|--|
|  01234 |
| Compañía, dirección 05 01234-CPD-00234 |
| EN 450-1 Ceniza volante para hormigón Categoría de finura: N Valor declarado de la finura en caso de categoría N: 25% Pérdidas por calcinación, categoría: A Densidad de partículas: 2 300 kg/m³ Sustancias peligrosas: NL, F³⁾ |

In the case of silica fume, a test certificate shall be issued guaranteeing that all of the specifications mentioned in Section 30.2 of this Code have been met. The document shall also contain:

- Name of laboratory
- In the case of a laboratory that is not a public laboratory, as covered in Section 78.2.2.1, a statement from the laboratory that it is certificated, pursuant to Standard UNE EN ISO/IEC 17025, to carry out the abovementioned test.
- Date of issue of certificate
- Guarantee that the statistical analysis corresponds

1.2.6 Concrete

The test certificates guaranteeing compliance with the relevant provisions laid down in this Code must be forwarded. As a minimum, they shall include:

- Certificate of dosing mentioned in Annex 22 to this Code
- Where applicable, a certificate of the tests that implement those covered in Annex 22: resistance to compression and depth of water penetration
- Name of laboratory
- In the case of a laboratory that is not a public laboratory, as covered in Section 78.2.2.1, a declaration from the laboratory that it is accredited, pursuant to Standard UNE EN 17025, to carry out the abovementioned test.
- Date of issue of certificate
- Type of specimen used in the compression test

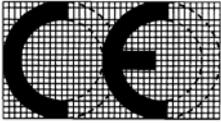
The following documents relating to the materials used in preparing concrete shall be forwarded:

Documentation corresponding to the CE marking or, where applicable, certificates of tests guaranteeing compliance with the specifications laid down in this Code.

Where applicable, statements of having an officially recognised quality mark.

1.2.7 Steel for passive reinforcements

Where applicable, the documentation required by the CE marking shall be forwarded. The figure shows a model example of a label for the market.

| |
|--|
|  01234 |
| Compañía, Dirección 05 01234 – DPC – 00234 |
| EN 10080 xxx Número de producto 226 Acero para armaduras de hormigón armado Barra - 8 × 12 000 |
| Alargamiento: A_{gt} 5% Soldabilidad: C_{eq} = 0,52 Sección: 8 mm Tolerancias: cumple Aptitud al doblado: cumple Tensión de adherencia: cumple (geometría superficial) Relación R_m/R_s: 1,08 Límite elástico: 500 MPa Fatiga: PND Durabilidad: C=0,24; S=0,055; P=0,055; N=0,014; Cu=0,85; C_{eq} = 0,52 |

Until the CE marking has entered into force, a test certificate guaranteeing compliance with all of the specifications mentioned in Article 32 of this Code. The documentation shall also contain:

- Name of laboratory

In the case of a laboratory that is not a public laboratory as covered in Section 78.2.2.1, a statement from the laboratory that it is accredited, pursuant to Standard UNE EN ISO/IEC 17025, to carry out the abovementioned test.

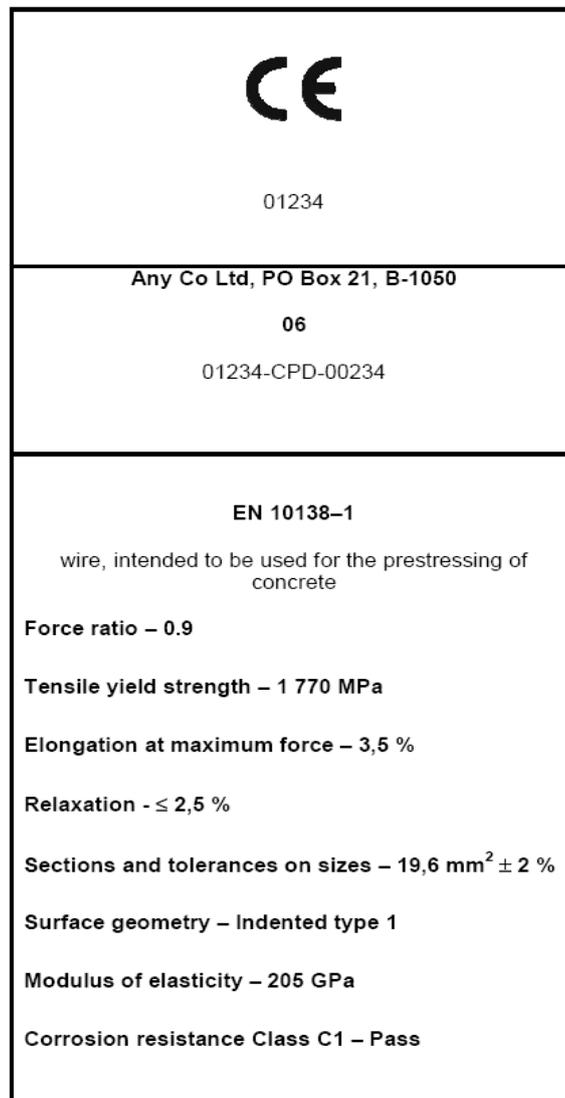
- Date of issue of certificate
- Where applicable, bending-unbending test certificate
- Where applicable, simple bending test certificate

For particularly susceptible weldable steel, certificates of fatigue and alternative strain tests
 When the manufacturer guarantees the adherence characteristics by means of the beam test laid down in Section 33.2 of this Code, he shall issue an adherence homologation certificate, which will contain, as a minimum, the following:

- Commercial brand of the steel
- Type of supply: bar or roll
- Permitted maximum variations of geometric characteristics of ribs

1.2.8 Steel for active reinforcements

Where applicable, the documentation required by the CE marking shall be forwarded. The figure shows a model example of a label for the market.



Until the CE marking has entered into force, a test certificate guaranteeing compliance with all of the specifications mentioned in Article 34 of this Code shall be included. The documentation shall also contain:

- Name of laboratory

In the case of a laboratory that is not a public laboratory, as covered in Section 78.2.2.1, a statement from the laboratory as being accredited pursuant to Standard UNE EN 17025, to carry out the abovementioned test.

- Date of issue of certificate
- Tension test certificate
- Where applicable, bending-unbending test certificate
- Where applicable, simple bending test certificate
- Where applicable, skewed tension test certificate

1.2.9 Passive reinforcements

In the case of electrowelded(wire fabrics) meshes and basic reinforcements electrowelded in a lattice, the documentation required in the CE marking shall be forwarded from the date of its entry into force.

Prior to the abovementioned entry into force, a certificate of guarantee from the manufacturer shall be forwarded signed by a suitably qualified physical person containing all of the characteristics laid down in this Code.

In the case of reinforcements prepared according to the design project, a certificate of guarantee confirming compliance with all the specifications pursuant to this Code shall be included, along with a test results certificate. The documentation shall also contain:

- Name of the laboratory carrying out the tests

In the case of a laboratory that is not a public laboratory as covered in Section 78.2.2.1, a statement from the laboratory that it is accredited, pursuant to Standard UNE EN ISO/IEC 17025, to carry out the abovementioned test.

- Date of issue of certificate
- Where applicable, certificate of junction detachment test
- Where applicable, certificate of bending-unbending tests and simple bending test
- Where applicable, certificate of qualifications of the personnel carrying out non-resistant welding
- Where applicable, certificate of type-approval of welders and the welding process

A copy of the documentation relating to steel for passive reinforcements shall also be forwarded pursuant to Section 1.2.7 of this Annex.

1.2.10 Prestressing systems

The documentation required by the CE marking shall be forwarded. There is no labelling model to which the supplier of prestressing must adhere, when this is done by means of a specific European technical suitability document for each year. All suppliers must choose the labelling model that they deem appropriate, which must bear the following information:

The letters CE must be followed by the identification number of the certification body

- Number and registered address of the supplier
- Identification of the product
- The last two digits of the year in which the marking was attached
- Number of the CE conformity certificate for the product
- Number of the technical approval document
- Technical approval guidelines number (ETAG 013)

Steel specifications

- Type: bar, wire or cord
- Maximum unit load
- Nominal cross-section
- Relaxation at 1000 hours for an initial tension equal to 70% of the guaranteed maximum unit load
- Elasticity module

Specifications of tendons

- Type
- Corrosion protection
- Specifications of anchorages
- Weight of the tendon
- Maximum unit load
- Curve friction coefficient (μ)
- Parasite friction coefficient (k)
- Minimum curve radius
- Inside and outside diameter of the sheath, and thickness
- Maximum separation between the supports of the sheath

Specifications of anchorages

- Type of anchorage
- Minimum separation between mass centers, with indication of the average strength of the concrete
- Minimum separation between plates, with indication of the average strength of the concrete
- Penetration of wedge

1.2.11 Prefabricated components

Where applicable, the documentation required by the CE marking shall be forwarded. Where those prefabricated components in which it is declared that the materials specified in the manufacturing plan pursuant to the project have been used, and prepared in such a way that the manufacturing process complies with the manufacturing plan pursuant to the project (method 3 of those laid down in the scope of Directive 89/106/EEC), the CE marking shall include the following information:

- Properties of the materials used
- Geometric data of the element: dimensions, sections and tolerances
- Quality control plan of the manufacturing process

For those prefabricated components deemed to comply with the essential requirements by means of the indication of the element's geometric data and the properties of the component materials and the products used (method 1), the following information must be included in the CE marking:

- Geometric data of the element: dimensions, sections and tolerances
- Properties of materials and products used that are necessary both for calculating

the bearing capacity and for other relevant properties of the component:
durability, functionality, etc

- For components whose properties are determined by Eurocodes (method 2), the CE marking shall include the following information
- Characteristic values of resistance and other properties of the cross section whereby it is possible to calculate the bearing capacity and the other relevant properties of the component
- Values for calculating the properties of the element. National parameters shall be used to obtain these values and in the case of the National Annexes not having been prepared, those recommended in the Eurocodes shall be used.

For other products for which the CE marking is not in force, the certificate guaranteeing compliance with all of the specifications relating to passive reinforcements, active reinforcements and concrete laid down in this Code shall be included. The document shall also contain:

- Name of laboratory
- In the case of a laboratory that is not a public laboratory as covered in Section 78.2.2.1, a statement from the laboratory that it is accredited, pursuant to Standard UNE EN 17025, to carry out the abovementioned test.
- Date of issue of certificate
- Certificate of concrete composition mentioned in Annex 27 to this Code
- Where applicable, a certificate that the tests implement the provisions laid down in Annex 27: resistance to compression and depth of water penetration
- Where applicable, certificate of qualifications of the personnel carrying out non-resistant welding
- Where applicable, certificate of qualification recognition of welders and the welding process

Prior to supply, the following documentation relating to suppliers of materials used in the preparation of passive reinforcements shall be forwarded:

- Documentation corresponding to the CE marking or, where applicable, certificates of tests guaranteeing compliance with the specifications laid down in this Code.
- Where applicable, declarations of having an officially recognised quality mark.
- Where applicable certificate of adherence test

2. Documents during the supply

With the delivery of any material or product, the supplier shall provide a supply sheet including, at least, the information detailed below specifically for each material or product.

2.1 Aggregates

- Identification of the supplier
- Serial number of the supply sheet
- Name of the quarry
- Identification of the applicant
- Delivery date
- Quantity of the aggregate supplied
- Designation of the aggregate is specified in Section 28.2 of these Guidelines

- Identification of the place of supply

2.2 Admixtures

- Identification of the supplier
- Identification of the CE marking certificate
- Serial number of the supply sheet
- Identification of the applicant
- Delivery date
- Quantity supplied
- Designation of the admixture as specified in Section 29.2 of these guidelines
- Identification of the place of supply

2.3 Additions

- Identification of the supplier
- Number of the CE marking for fly ash
- Identification of the original installation (heat generating plant or blast furnace) for fly ash or slag
- Serial number of the supply sheet
- Identification of the applicant
- Delivery date
- Designation of the addition is specified in Section 30 of this Code
- Quantity supplied
- Identification of the place of supply

2.4 Concrete

- Identification of the supplier
- Serial number of the supply sheet
- Name of the concrete plant
- Identification of the applicant
- Delivery date and time
- Quantity of concrete supplied
- Designation of the concrete is specified in Section 29.2 of this Code; there must always be compressive strength, the consistency, the maximum size of the aggregate and the type of environment to which it will be exposed.
- Actual composition of the concrete, which shall include, at least,
 - type and content of cement,
 - water/cement ratio
 - addition content, where applicable
 - type and quantity of admixtures
- Identification of cement, admixtures and additions used
- Identification of the place of supply
- Identification of the lorry transporting the concrete
- Time limit for using the concrete

2.5 Steel for passive reinforcements

- Identification of the supplier
- Number of the CE marking certificate or, where applicable, indication of own consumption
- Number of the adherence approval certificate, where applicable, as laid down in Section 32.2 of this Code
- Serial number of the supply sheet
- Name of the factory

- Identification of the applicant
- Delivery date
- Quantity of steel supplied classified by diameter and type of steel
- Diameters supplied
- Designation of types of steel supplied
- Type of supply (bar or roll)
- Identification of the place of supply

2.6 Steel for active reinforcements

- Identification of the supplier
- Number of CE marking certificate (as of the date of entry into force)
- Serial number of the supply sheet
- Name of the factory
- Identification of the applicant
- Delivery date
- Quantity of steel supplied classified by type
- Diameters supplied
- Designation of the wire, bar or cord
- Identification of the place of supply

2.7 Passive reinforcements

- Identification of the supplier
- Number of the CE marking certificate or, where applicable, indication of self consumption
- Serial number of the supply sheet
- Name of the structural ironwork installations
- Identification of the applicant
- Delivery date and time
- Identification of the steel used
- Identification of the reinforcement
- Identification of the place of supply

2.8 Prestressing systems

- Identification of the supplier
- Number of CE marking certificate (as of the date of entry into force), or where applicable, indication of self consumption
- Serial number of the supply sheet
- Name of operator
- Identification of the applicant
- Delivery date and time
- Identification of materials used
- Designation of components supplied
- Quantity of components supplied classified by component
- Identification of the place of supply
-

2.9. Precast components

- Identification of the supplier
- Number of CE marking certificate (as of the date of entry into force), or where applicable, indication of self consumption
- Serial number of the supply sheet

- Name of prefabrication installation
- Identification of the applicant
- Delivery date and time
- Identification of materials used
- Designation of components supplied
- Quantity of components delivered
- Identification of the place of supply

3. Documents after the supply

3.1 Certificate of final guarantee of supply

Suppliers of materials or products covered by this Code shall provide a final supply certificate, detailing all materials or products supplied.

The supply certificate must retain the necessary traceability of the materials or products certified.

The box below contains a model with the minimum information that the supply certificate must contain

| SUPPLY CERTIFICATE | | | |
|---|------------------------|--------------------------------|-----------------|
| Name of the supply company _____ | | | |
| Name and position of the person in charge of the supply : _____ | | | |
| Address: _____ | | | |
| <i>Identification of the declarant (name, address, telephone/fax number, identity document</i> | | | |
| <i>(VAT number/Passport)</i> | | | |
| I hereby certify that: | | | |
| The company _____ | | | |
| <i>Identification of the declarant (name, address, telephone/fax number, identity document (VAT number/Passport)</i> | | | |
| Has supplied _____ the products | | | |
| below detailed | | | |
| <i>[Place of receipt of material or product]</i> | | | |
| _____ | | | |
| _____ | | | |
| <i>Date</i> | <i>Delivery number</i> | <i>Material Identification</i> | <i>Quantity</i> |
| In the period between the declaration of being in possession of an officially recognised quality mark and the last supply, the quality mark in question has neither been suspended nor withdrawn. <i>(where applicable)</i> | | | |
| I hereby declare that I am responsible for the compliance of the above supply with the provisions laid down in the Code for Structural Concrete, adopted by Royal Decree of [date] | | | |
| Place, date and signature | | | |

In the case of supply of concrete with SR cement, and in order to ensure the its traceability, concrete suppliers shall add to the supply certificate defined above a copy of the delivery notes or the certificate of delivery of the cement to the concrete supply plant, corresponding to the period of supply of the concrete.

4. Record of samples taken:

The record of samples of the materials or products covered by this Code shall contain at least the following information:

- identification of the product
- Date, time and place of the taking of the samples
- Identification and signature of the persons responsible present in sampling
- Identification of the material or product from which the samples or specimens are taken, as laid down in this Code
- Number of samples taken
- Size of sample
- Code of sample