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Autorisé et notifié conformément à l'article 10 de la directive 89/106/EEC du Conseil, du 21 décembre 1988, relative au rapprochement des dispositions législatives, réglementaires et administratives des Etats membres concernant les produits de construction.

CSTB
le futur en construction

MEMBRE DE L'EOTA

European Technical Approval ETA-07/0019

(English translation prepared by CSTB, the original version is in French language)

Noms commerciaux: **Trade names:**	**CIMENT NATUREL PROMPT** **PROMPT FIX-ZEMENT** **LE PROMPT VICAT** **CIMENT PROMPT VOREP PE** **PROMPT PORTE DE FRANCE GRENOBLE** **LE PROMPT** **L'UNIQUE**
Titulaire : **Holder of approval:**	**Vicat** **France**
Type générique et utilisation prévue du produit de construction : **Generic type and use of construction product:**	Ciment à prise rapide **Rapid setting cement**
Validité du : au : **Validity from / to:**	**09/03/2012** **09/03/2017**
Usine de fabrication : **Manufacturing plant:**	**Société VICAT - Usine de Saint Egrève** **1 rue du Lac – BP 207** **38522 SAINT EGREVE**
Le présent Agrément technique européen contient : **This European Technical Approval contains:**	10 pages **10 pages**

This European Technical Approval cancels and replaces ETA-07/0019 with validity from 09/03/2007 to 09/03/2012.
Cet Agrément Technique Européen annule et remplace l'ETA-07/0019 valide du **09/03/2007** au **09/03/2012**

I LEGAL BASES AND GENERAL CONDITIONS

1 - This European Technical Approval is issued by the Centre Scientifique et Technique du Bâtiment (CSTB) in accordance with:

- Council Directive 89/106/EEC of 21 December 1988 on the approximation of laws, regulations and administrative provisions of Member States relating to construction products[1], modified by the Council Directive 93/68/EEC[2] and Regulation (EC) no. 1882/2003 of the European Parliament and of the Council[3];

- Décret n° 92-647 du 8 juillet 1992[4] concernant l'aptitude à l'usage des produits de construction;

- Common Procedural Rules for Requesting, Preparing and the Granting of European Technical Approvals set out in the Annex to Commission Decision 94/23/EC5;

- Common Understanding of Assessment Procedure n° 03.01/26-A.

2 - The Centre Scientifique et Technique du Bâtiment is authorised to check whether the provisions of this European Technical Approval are met. Checking may take place in the manufacturing plant. Nevertheless, the responsibility for the conformity of the products to the European Technical Approval and for their fitness for the intended use remains with the holder of the European Technical Approval.

3 - This European Technical Approval is not to be transferred to manufacturers or agents of manufacturer other than those indicated on page 1; or manufacturing plants other than those laid down in the context of this European Technical Approval.

4 - This European Technical Approval may be withdrawn by the CSTB in particular pursuant to information by the Commission according to Article 5(1) of the Council Directive 89/106/EEC.

5 - Reproduction of this European Technical Approval including transmission by electronic means shall be in full. However, partial reproduction can be made with the written consent of the CSTB. In this case, partial reproduction has to be designated as such. Texts and drawings of advertising brochures shall not contradict or misuse the European Technical Approval.

6 - The European Technical Approval is issued by the approval body in its official language. This version corresponds fully to the version circulated within EOTA. Translations into other languages have to be designated as such.

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1 Official Journal of the European Communities no. L 40, 11.2.1989, p. 12
2 Official Journal of the European Communities no. L 220, 30.8.1993, p. 1
3 Official Journal of the European Union no. L 284, 31.10.2003, p. 1.
4 Journal officiel de la République française du 14 juillet 1992
5 Official Journal of the European Communities no. L 17, 20.1.1994, p. 34.

II SPECIFIC CONDITIONS OF THE EUROPEAN TECHNICAL APPROVAL

1 Definition of product and intended use

1.1. Definition of product

The rapid setting cement CIMENT NATUREL PROMPT is special cement that is not covered by a European standard.

The rapid setting cement is a hydraulic binder with quick set and strength rise features. Particular features are the following:
- raw materials are extracted from a single specific homogeneous geological seam,
- it is burned in a vertical kiln at T < 1,300°C in order to obtain low quantities of very reactive aluminates (but not calcium monoaluminates) and C_2S content > 45%,
- it is a pure clinker without addition,
- initial setting time is between 1 and 4 minutes.

The minerals of the clinker will be declared in the "Control Plan" associated to the ETA.

This cement complies with the specifications of EN 197-1 standard except the following points presented in Table 1.

Table 1: Comparison between cement characteristics and specifications of EN 197-1

Cement properties	Specifications of EN 197-1 standard
Raw materials are extracted from a single geological seam	Clinker is a mixture of raw materials (EN 197-1, § 5.2.1)
Calcium silicates content of the clinker between 50% by mass and 2/3 by mass	Calcium silicates content > 2/3 (EN 197-1, § 5.2.1)
Setting time between 1 and 4 min	Setting time ≥ 45 min (EN 197-1, § 7.1.2)
Soundness (expansion) < 15 mm	Soundness (expansion) < 10 mm
Loss of ignition ≤ 14%	Loss of ignition ≤ 5.0%

The chemical composition of this cement is very close to the one of Portland cement and it has high βC_2S content, favourable to the durability. Moreover, this cement has been produced and used for 150 years so its durability performance has been shown in practice.

1.2. Intended use

This cement is intended to be used to produce concretes, mortars, grouts and other mixes for construction and for the manufacture of construction products with aggregates/cement and water/cement ratios lower than usually practiced with standardised common cements.

The ratios commonly used are the following:

- **Aggregates/cement ratio**

Mortars
Maximum value: < 2.5,
Usual value: between 1 and 2.
Concrete
Maximum value: < 4,
Usual value: between 2.5 and 4.

- **Water/cement ratio**

Maximum value: < 0.5,
Usual value: around 0.4.

Because of the rapid setting time, batch volumes are generally lower than 100 litres.

It is more particularly employed for the following applications:
- industries using hydraulic binders,
- the manufacture of ready-mixed mortar and concrete intended for the following:
  - quick jobs,
  - sprayed concrete,
  - mortar and concrete for repair jobs, etc.

The provisions made in this European Technical Approval are based on an assumed working life of concrete, mortar and grout similar to the one of concrete, mortar and grout incorporating common cement provided that the conditions laid down in sections 4.2 and 5 are met. The indication given on the working life cannot be interpreted as a guarantee given by the producer, but are to be regarded only as means for choosing the right products in relation to the expected economically reasonable working life of the works.

2 Characteristics of product and methods of verification

The conformity of the product for the mechanical, physical, chemical and durability requirements has been assessed as described in §5 of CUAP 03.01/26-A. The conformity assessment doesn't apply to the water-soluble hexavalent chromium content (see §2.5).

2.1. Early strength

The early strength of the cement is the compressive strength determined at 15 min . The test method is derived from EN 196-1 and described in CUAP 03.01/26-A Annex A1.1.
The declared characteristic value and the declared limit value for single results are ≥ 3 MPa.

2.2. Standard strength

The standard strength of the cement is the compressive strength determined at 28 days. The test method is derived from EN 196-1 and described in CUAP 03.01/26-A Annex A1.2.
The declared characteristic value and the declared limit value for single results are ≥ 20 MPa.

2.3. Initial setting time

The method for the determination of the initial setting time is derived from EN 196-3 and described in CUAP 03.01/26-A Annex A1.3.
The declared characteristic and the declared limit value for single result are: lower limit ≥1 min and upper limit ≤ 4 min.

2.4. Shrinkage

The shrinkage is determined in accordance with NF P 15-433. Composition and sample preparation method are the same than for early and standard strength tests.

The declared characteristic value is ≤ 1200 µm/m and the declared limit value for single result is ≤ 1500 µm/m.

2.5. Water-soluble hexavalent chromium content

Water-soluble hexavalent chromium content is one of the defined requirements in CUAP 03.01/26-A. However, this requirement falls in the scope of Directive 53/2003/CE that doesn't deal with ER3 of the CPD and does not lead to the CE marking of complying products. Directive 53/2003/EC has been adopted to protect workers who could be in

contact with freshly hydrated cement during operations on the construction sites. These operations are normally completed within few hours and do not clearly fall in the scope of CPD. Therefore there is no need for including the requirement for water-soluble hexavalent chromium content in the ETA.

2.6 Soundness

The method for determination of the soundness is derived from EN 196-3 and described in CUAP 03.01/26-A Annex A1.4.
The characteristic value is ≤ 15 mm and the limit value for single result is ≤ 20 mm.

2.7. Loss of ignition

The loss of ignition is determined in accordance with EN 196-2.
The characteristic value and the limit value for single result are ≤ 14.0% by mass.

2.8. Sulphate content

The sulphate content is determined in accordance with EN 196-2.
The characteristic value and the limit value for single result are ≤ 4.0% by mass.

2.9. Chloride content

The chloride content is determined in accordance with EN 196-2.
The characteristic value and the limit value for single result are ≤ 0.10% by mass.

3 Evaluation and attestation of Conformity and CE marking

3.1. System of attestation of conformity

According to the communication of the European Commission[4] the system 1+ of attestation of conformity applies

This system of attestation of conformity is defined as follows:

System 1+:Certification of the conformity of the product by an approved certification body on the basis of:

a) tasks for the manufacturer:

1. factory production control,
2. further testing of samples taken at the factory by the manufacturer in accordance with the "Control Plan".

b) tasks for the approved body:

3. initial type-testing of the product,
4. initial inspection of factory and of factory production control,
5. continuous surveillance, assessment and approval of factory production control
6. audit-testing of samples taken at the factory

Note : approved bodies are also referred to as "notified bodies".

4 Letter of the European Commission of 6/10/03 to EOTA.

3.2. Responsibilities

3.2.1. Tasks of the manufacturer

3.2.1.1. Factory production control

The manufacturer shall exercise permanent internal control of production based on EN 197-2 and the CUAP 03.01/26-A. All the elements, requirements and provisions adopted by the manufacturer shall be documented in a systematic manner in the form of written policies and procedures, including records of results performed. This production control system ensures that the product is in conformity with the European Technical Approval.

The manufacturer may only use materials stated in the technical documentation of this European Technical Approval.

The factory production control shall be in accordance with the "Control Plan" relating to the ETA which is part of the technical documentation of this European Technical Approval. The "Control Plan" is laid down in the context of the factory production control system operated by the manufacturer and The "Control Plan" has been deposited within the Centre Scientifique et Technique du Bâtiment[5].

The results of factory production control shall be recorded and evaluated in accordance with the provisions of the "Control Plan".

3. 2.1.2. Other tasks of manufacturer

The manufacturer shall on the basis of a contract, involve a body which is approved for the tasks referred to in section 3.1 in the field of rapid setting cement in order to undertake the actions laid down in section 3.3. For this purpose, the "Control Plan" referred to in section 3.2.1.1 and 3.2.2 shall be handed over by the manufacturer to the approved body.

The manufacturer shall make a declaration of conformity, stating that the construction product is in conformity with the provisions of the ETA.

3.2.2. Tasks of approved bodies

The approved body shall perform the
- initial type-testing of the product,
- initial inspection of factory and of factory production control,
- continuous surveillance, assessment and approval of factory production control (1/year),
- audit-testing of samples taken at the factory (6/year),

in accordance with the provisions laid down in EN 197-2 and in the "Control Plan".

For initial type-testing the results of the tests performed as part of the assessment for the European Technical Approval shall be used unless there are changes in the production line or plant. In such cases the necessary initial type-testing has to be agreed between the Centre Scientifique et Technique du Bâtiment and the approved bodies involved.

The approved body shall retain the essential points of its actions referred to above and state the results obtained and conclusions drawn in a written report.

The approved certification body involved by the manufacturer shall issue an EC certificate of conformity of the product stating the conformity with the provisions of this European Technical Approval.

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5 The "Control Plan" is a confidential part of the European Technical Approval and only handed over the approved bodies involved in the procedure of attestation of conformity. See section 3.2.2.

In cases where the provisions of the European Technical Approval and its "Control Plan" are no longer fulfilled the certification body shall withdraw the certificate of conformity and inform the Centre Scientifique et Technique du Bâtiment without delay.

3.3. CE-Marking

3.3.1. Bagged cement

In the case of bagged cement, the CE conformity marking, the identification number of the certification body and the accompanying information as given below should be affixed either on the bag or on the accompanying commercial documents or on a combination of these. If all the information is not placed on the bag, but only part, then the full information should be given on the accompanying commercial documents.

CE 0123	CE conformity marking, consisting of the "CE" – symbol given in Directive 93/68/EEC. Identification number of the certification body.
Any company **Registered address** **Any factory**	Trade name or corporate name of the producer. Registered address of the producer. Trade name or corporate name of the factory where the cement was produced.
Year 01	The last two digits of the year in which the marking was affixed. The year of marking should relate to the time of packing into bags
0123-CPD-0456	Number of the EC certificate of conformity.
ETA-XX/YYYY	ETA number.
Any product designation	Designation

For reasons of practicality, selections from the following alternative arrangements for bagged cement concerning the presentation of the accompanying information may be used :

a) When the CE marking is given on the bag (this is the normal situation and is preferred) the following elements of the accompanying information may be given on the accompanying commercial documents instead of on the bag:
- the name or identifying mark of the factory;
- the year of affixing the CE marking;
- the number of the EC certificate of conformity;
- additional information.

b) Where the last two digits of the year in which the CE marking is affixed is pre-printed on the bag, the year so printed should relate to the date of affixing with an accuracy of within plus or minus three months.

c) Where the last two digits of the year in which the marking is affixed is to be presented but not pre-printed on the bag, it may be applied by means of date stamping of the bag in any easily visible position. This position should be indicated in the information accompanying the CE marking.

The product should be accompanied, when and where required and in the appropriate form, by documentation listing any legislation on dangerous substances for which compliance is claimed, together with any information required by that legislation.

Note: European legislation without national derogations need not be mentioned.

3.3.2. Bulk cement

In the case of bulk cement, the conformity marking, the identification number of the certification body and the accompanying information as listed for bagged cement in § 3.3.1. should be affixed in some suitable practical form on the accompanying commercial documents.

4 Assumptions under which the fitness of the product for the intended use was favourably assessed

4.1. Manufacturing

The European Technical Approval is issued for the product on the basis of agreed data/information, deposited at Centre Scientifique et Technique du Bâtiment, which identifies the product that has been assessed and judged. Changes to the product or production process, which could result in this deposited data/information being incorrect, should be notified to Centre Scientifique et Technique du Bâtiment before. Centre Scientifique et Technique du Bâtiment will decide whether or not such changes affect the ETA and consequently the validity of the CE marking on the basis of the ETA and if so whether further assessment or alterations of the ETA shall be necessary.

4.2. Application

This cement is intended to be used to produce concretes, mortars, grouts and other mixes for construction and for the manufacture of construction products with

aggregates/cement and water/cement ratios lower than usually practiced with standardised common cements.

The concretes, mortars, grouts and other mixes are, in general, characterised by rapid setting time and are employed as described in § 1.2.

General assumptions which apply to standardised common cements are applicable.

Concretes, mortars, grouts and other mixes composition and the constituent materials for described mixes shall be chosen to satisfy the requirements specified for fresh and hardened mixes, including consistence, density, strength, durability, protection of embedded steel against corrosion, taking into account the production process and the intended method of execution of works, following the appropriate standards and/or regulations for concrete and mortar valid in the place of use.

5 Indications to the manufacturer

5.1. Packaging, transport, storage

This cement is delivered in bags, big bags and bulk.

Bags

The manufacturer's name, the product's trademark, as well as the packing time are printed on the bags.

The bags are to be kept in a sheltered dry place.

The bags consist of three layers: bleached kraft paper, polyethylene film, and brown kraft paper. The pallets are sealed waterproof with a polyethylene shrink pack.

Big bags

The manufacturer's name, the product's trademark, as well as the packing time are printed on the big bags.

The big bags are to be kept in a sheltered dry place.

The big bag is made up of two layers: a layer of polypropylene and a waterproof polyethylene film.

Bulk

The manufacturer's name and the product's trademark are printed on the accompanying commercial documents.

The "tare" is checked to avoid any pollution and the truck's driver has to testify that his tank is clean.

The cement shall be stored in silos.

5.2. Use

The following are ways of using this cement when manufacturing grouts, mortar, and concrete:

- mixer, provided the setting time is delayed by adding a retarder, the mixing time being around 1 minute,
- trough and trowel,
- a spraying pot,
- dry air sprayers with a preliminary wetting spraying nozzle.

The precautions to be taken in using this cement are like those pertinent to traditional cements:

- avoid prolonged contact with the skin,
- avoid excess amounts of water,
- work on a clean, moist support,
- use clean aggregates.

The very short setting time of this cement furthermore involves the need to take special precautions:

- mix only small quantities, and do not add water once the set has begun,
- some ways of using them, such as with mixers, require the use of retarders; in most cases, this cement is used with citric acid or trisodium citrate as an additive to delay the initial setting time,
- the influence of the temperature on the setting time must be taken into account: hot weather speeds up the set, and cold weather slows it down.

The original French version is signed by

Le Directeur Technique
Charles BALOCHE