

**1. TITLE OF THE CERTIFICATE (ES)**

Certificado de Profesionalidad de nivel 3 en  
QUIA0108 ENSAYOS FÍSICOS Y FISICOQUÍMICOS

**2. TRANSLATED TITLE OF THE CERTIFICATE (EN)**

Professional Certificate Level 3 in  
QUIA0108 PHYSICAL AND PHYSICO-CHEMICAL TESTING  
(This translation has no legal status)

**3. PROFILE OF SKILLS AND COMPETENCES**

The holder of this certificate will have acquired the **general competence** to organise and apply physical testing techniques and physico-chemical analysis on materials, substances semi-manufactured products, and finished products, geared to research, analysis or quality control, and acting under rules of good laboratory practice and safety and environmental standards. This general competence is divided into the following **skills units** (UC):

- Organise and manage laboratory activity, applying specific procedures and standards (UC0052\_3).
- Arrange the sampling plan and take samples (UC0053\_3).
- Carry out physical tests, evaluating and informing of the results (UC0056\_3).
- Carry out physicochemical tests, evaluating and informing of the results (UC0057\_3).

The professional skills are acquired through the **learning outcomes** defined within the related Training Modules (MF):

- Quality in the laboratory (MF0052\_3).
- Sampling for testing and analyses (MF0053\_3).
- Physical testing of materials (MF0056\_3).
- Physicochemical testing (MF0057\_3).
- Practical training at the workplace in physical and physico-chemical testing (MP0051)

(See legal basis for all learning outcomes information acquired by the holder of this Certificate in each MF).

As a reference the learning outcomes include in the Practical training at the workplace that complete and reinforce the learning outcomes acquired in the other training modules, are:

- Interpret and apply the regulations referring to good laboratory practice, health and safety and environmental control, including the results in the established digital format.
- Take samples and transfer them in conditions that guarantee their representative nature and prevent cross-contamination.
- Carry out and evaluate physical testing of materials, checking their response to external aggression.
- Prepare samples for physico-chemical trials, calibrating the corresponding equipment and taking the measures required for the identification or determination of substances.
- Take part in the company's working processes, following the rules and instructions established at the workplace.

## 4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THIS CERTIFICATE

The holder of this certificate may work in companies or laboratories in a variety of sectors where physical and physico-chemical testing has to be carried out on materials. The holder may work in the chemical industry, food industry, construction, mechanical industry, metallurgy, the environment, processing industry, textiles industry, pharmaceutical and cosmetic industry, paper and cardboard industry; and in service laboratories, and in general, sectors where the process requires the use of materials whose validity depends on their physical and/or physico-chemical properties.

The most pertinent occupations and positions are:

- Industrial chemical laboratory technician.
- Industrial chemical laboratory analyst.
- Quality control technician in the wood and cork industry.
- Quality control technician in a variety of manufacturing industries (except glass).
- Raw material and finished material analyst.
- Laboratory analyst of materials.
- Metallurgy and electroplating laboratory analyst.
- Mechanically manufactured product testing technician.

The holder of this professional certificate has recognition of the basic level training in labour risk prevention, according to Annex IV of the Royal Decree 39/1997 of 17 of January approving the Labour Risks Prevention Act.

## 5. OFFICIAL BASIS OF THE CERTIFICATE

### Name and status of the national/regional authority providing accreditation/recognition of the certificate

The Ministry of Employment and Social Security or the corresponding autonomous regional administration within the scope of its competence, in the name of the King. The certificate is valid throughout Spain.

### Level of the certificate

The Professional Certificate Level 3 of the National Repertoire of Professional Certificates corresponds to level 4 of the International Standard Classification of Education (ISCED-P 2011).

The European Qualification Framework (EQF) level:

### Grading scale/Pass requirements

The grading scale and pass level of the training modules are expressed on a scale of 0 to 10. The minimum score for a pass is 5 in every training module including a pass in the practical training at the workplace module.

The grading system is as follows:

- FAIL: 0 to 4.9
- PASS-SATISFACTORY: 5 to 6.9
- PASS-GOOD: 7 to 8.9
- PASS-EXCELLENT: 9 to 10

### Access to next level of education/training

This Professional Certificate Level 3 gives access to Professional Certificate Level 3 within the same professional area and family.

For validation purposes, the educational authorities will recognise the professional module or modules of the VET diplomas corresponding to the skills units included in the training modules of this certificate.

### Legal basis

Royal Decree 1970/2008 of 28 November, establishing four professional certificates in the professional family Chemicals, which are included in the National Repertoire of Professional Certificates. (Appendix III, Code: QUIA0108)

Amended by Royal Decree 719/2011 of 20 May, establishing ten professional certificates in the professional family Chemicals, which are included in the National Repertoire of Professional Certificates, and updating the professional certificate established as Appendix III of Royal Decree 1970/2008 of 28 November; and by Royal Decree 623/2013 of 2 of August establishing two professional certificates in the professional family Chemicals, which are included in the National Repertoire of Professional Certificates, and updating the professional certificate established as Appendix, I, II, III and IV of Royal Decree 1970/2008 of 28 November and Appendix, I and II of Royal Decree 1374/2008.

## 6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

This certificate may be acquired by:

1. Training: Completion with a pass grade of the face-to-face or online training programme.
2. Recognition of the professional skills acquired through professional experience or non-formal training (prior learning): Completion of a process of skills evaluation and accreditation in all the skills units making up the professional certificate.
3. Dual training: Completion of a training and apprenticeship contract, which may range from 1 year (or 6 months, if stipulated as such in the collective agreement) to 3 years, during which effective working time is combined with time dedicated to training under the training programme for the professional certificate.

The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:

Description of vocational training received	Percentage of total programme (%)	Duration (hours)
Training modules	84	420
Practical training at the workplace	16	80
<b>Total duration of training leading to the certificate</b>		<b>500</b>

### Entry/access requirements:

- *Bachiller* Diploma (upper secondary education); or
- Professional Certificate Level 2 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

**Additional information:** Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional Certificates is divided into three qualification levels (Level 1, Level 2 and Level 3), and by sectors into 26 professional families and 102 professional areas. More information is available at: [www.sepe.es](http://www.sepe.es)

National Europass Centre: [www.oapee.es](http://www.oapee.es)

(\*) **Explanatory note:** This document is designed to provide additional information about the specified certificate, but has no legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications; Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates; and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://europass.cedefop.eu.int>

## Information on Professional Certificates of the Map of Qualifications and Vocational Training in Spain

