

1. TITLE OF THE CERTIFICATE (ES)

**Certificado de Profesionalidad de nivel 3 en
 QUIT0110 ORGANIZACIÓN Y CONTROL DE LA TRANSFORMACIÓN DE POLÍMEROS TERMOESTABLES Y SUS
 COMPUESTOS**

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

**Professional Certificate Level 3 in
 QUIT0110 ORGANISATION AND CONTROL OF THERMOSETTING POLYMERS AND THEIR COMPOSITES PROCESSING
 (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 participate in all the operations in the process of preparing pharmaceutical and similar products, controlling, coordinating and supervising the operation, start-up, maintenance and shutdown of the installations and equipment, abiding by and ensuring compliance with the rules on correct manufacture, guaranteeing the release and traceability of the batch, and supervising the established safety and environmental conditions. This general competence is divided into the following **skills units (UC)**:

- Organise production in polymer processing industries (UC0778_3).
- Coordinate and control the processing of thermosets and polymer matrix composite materials (UC0783_3).
- Design and construct resin moulds and models for the processing of thermosets and polymer matrix composite materials (UC0784_3).
- Check the state and operation of the machines and installations for the polymer processing and its auxiliary services (UC0781_3).
- Coordinate and control complementary operations, finishing and quality of materials and thermoplastic and thermosetting products (UC0785_3).

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

- Organise production in polymer processing industries (MF0778_3).
- Processing of thermosets and polymer matrix composite materials (MF0783_3).
- Resin moulds for the processing of thermosets and polymer matrix composite materials (MF0784_3).
- Installations, machines and auxiliary services for polymer processing (MF0781_3).
- Coordination and control of complementary operations, finishing and quality of thermoplastic and thermosets materials and products (MF0785_3).
- Practical training at the workplace in Organisation and control of thermosetting polymers and their composites processing (MP0281).

(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:

- Design the programme for supplying raw materials needed to produce the product required, taking into account the size of the batch, its availability, and the guarantee of supply.
- Analyse the storage of raw materials, preparation of mixes and processing of thermosets and composite polymer matrix raw materials, explaining their fundamentals and applications.
- Relate the constructive needs of the moulds to the specifications of the polymer to be processed and characterise the preparation of moulds or models and their subsequent setting up and assembly.
- Analyse the operation of the polymer processing machines and auxiliary services associated to them and specify the fundamental characteristics of moulds and matrices, from the point of view of assembly and maintenance.
- Identify the safety elements incorporated in a polymer processing installation, the personal protective equipment and the measures to be taken in the start-up and maintenance operations.
- Relate the finishing operations of the thermoplastic and thermosetting material processing with the applications of the final product and analyse and apply the finishing techniques in the processed thermoplastic products and/or thermosets.
- 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 industries, auxiliary companies, production plants and laboratories, development centres and technical offices of related industries, in the following sectors: chemical industry; automotive supply industry; manufacture of electrical and domestic appliances; polymer processing industry; construction of recreational vessels; aerospace industry; energy; the electrical sector; civil construction using composite materials; as well as all those in which the product or raw materials are or form part of composite materials. The most pertinent occupations and positions are:

- Team leader in facilities for the manufacture of rubber, plastic or synthetic material products.
- Plastic and rubber technician.
- Mixing manager.
- Thermoset processing technician.
- Process technician.
- Design specialist in a technical office.
- Finishing section manager.
- Polyester mould and model supervisor.
- Machine operator manager for rubber and plastic product manufacturing.

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 1534/2011 of 31 October, establishing five professional certificates in the professional family Chemicals, which are included in the National Repertoire of Professional Certificates. (Appendix V, Code: QUIT0110)

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	88	580
Practical training at the workplace	12	80
Total duration of training leading to the certificate		660

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

National Europass Centre: 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

